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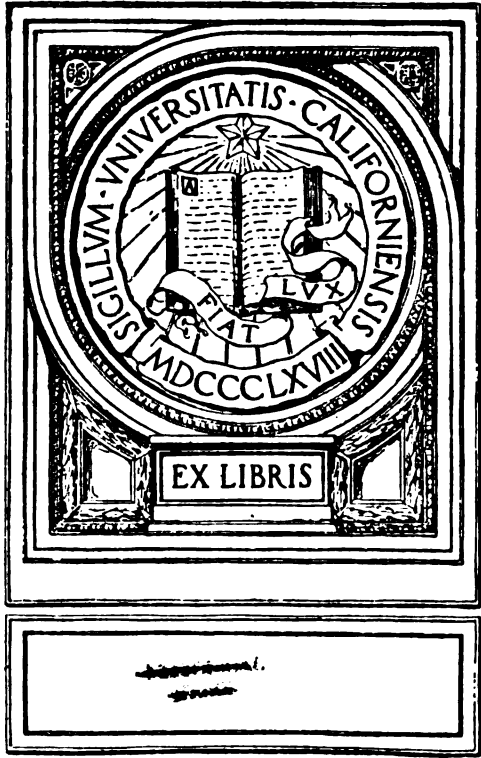
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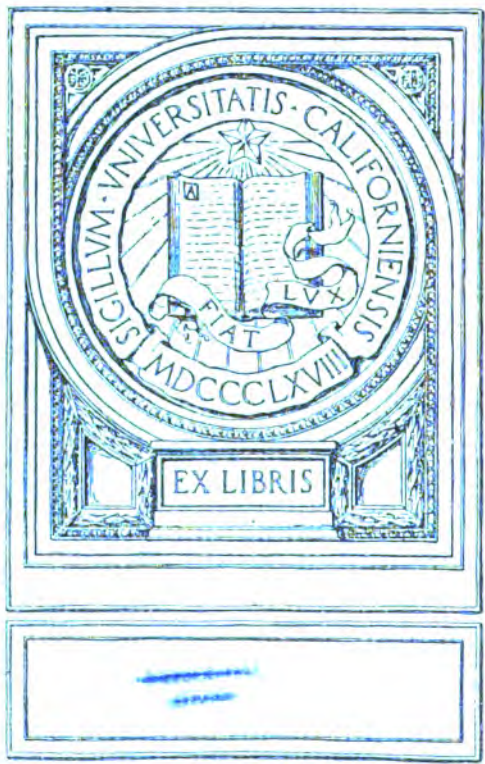
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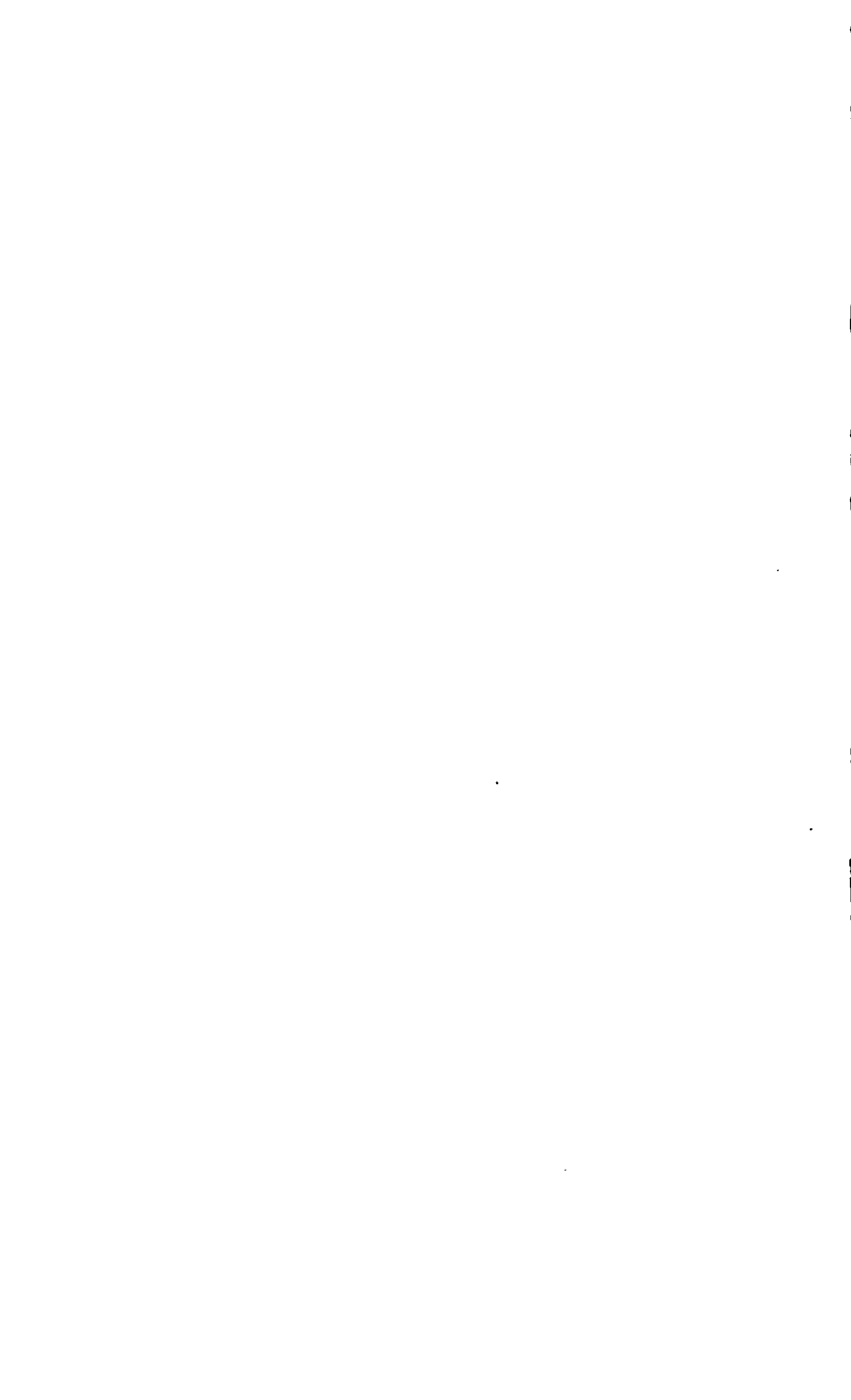
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THE
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COMMERCIAL REVIEW

OF THE
4.
SOUTH AND WEST.

A MONTHLY JOURNAL
OF TRADE, COMMERCE, COMMERCIAL POLITY, AGRICULTURE,
MANUFACTURES, INTERNAL IMPROVEMENTS, AND
GENERAL LITERATURE.

"Commerce is King."—~~Walt Whitman~~

J. D. B. DE BOW

EDITOR AND PROPRIETOR.

VOL. IV.



NEW ORLEANS:
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1847.

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NEW ORLEANS CHAMBER OF COMMERCE.

New Orleans, May 4th, 1846.

Be it resolved, That this Chamber highly approves of the **COMMERCIAL REVIEW**, a periodical established in this city by J. D. B. De Bow, Esq., and recommends it to the patronage of the commercial community.

SAMUEL J. PETERS, *President.*

CHARLES BRIGGS, *Secretary.*

SIR: I prefix a copy of a resolution, passed *unanimously* at a meeting of the Chamber of Commerce of this city, last evening.

Respectfully,

CHARLES BRIGGS, *Sec.*

To J. D. B. De Bow, Esq.

CHARLESTON CHAMBER OF COMMERCE.

Charleston, October 26th, 1846.

At a meeting of the Chamber, held this evening, the following resolutions were, after a few preparatory remarks, introduced by Col. J. Gadsden, and being seconded, were adopted by the Chamber.

Resolved, That the **COMMERCIAL REVIEW**, edited in New Orleans by our fellow-citizen, J. D. B. De Bow, Esq., is a work well calculated to exercise a most favorable influence on the Commercial interests of the South and West.

Resolved, That the zeal and talent with which it has been commenced, and the able articles which have appeared in its pages (as foreshadowing on the future the promises of the past), strongly recommend the *Review* to the patronage of the Southern community, and that the Chamber of Commerce of Charleston feel gratified at the opportunity of presenting to the public this testimony in its favor.

On motion of A. Moise, jr., Esq.,

Resolved, That a copy of these resolutions be forwarded to Mr. De Bow, and that they be published in the daily newspapers of the city.

Extract from the minutes.

WILLIAM B. HERIOT, *Secretary.*

SOUTHERN RAILROAD CONVENTION.

Columbia, S. C., May, 1846.

On motion of A. G. Sumner, Esq.,

Resolved, That it is with pleasure we learn our late fellow-citizen, J. D. B. De Bow, Esq., now of New Orleans, hereafter intends to devote a large portion of the **COMMERCIAL REVIEW** to the railroad interest in the South; we therefore heartily recommend that work to the patronage of those persons interested in such enterprises.

DE BOW'S COMMERCIAL REVIEW;

A MONTHLY JOURNAL OF TRADE, AGRICULTURE, COMMERCE,
COMMERCIAL POLITY, MANUFACTURES, INTERNAL IMPROVEMENTS, &c.

Published Monthly, in the City of New Orleans.

Terms \$5 per Annum, in advance.

Advocating the interests of the South and West, the COMMERCIAL REVIEW will not be the less mindful of the great interests of TRADE, COMMERCE AND AGRICULTURE throughout the World—Commerce in its various and multiform relations—in its History, its Laws, and its Statistics; Commercial communities; regulations of Trade, inter-State and inter-National; Treaties; Foreign and Domestic Tariffs, Excises and Posts; Marine relations; Enterprises of Commerce, in SHIPPING, CANALS, RAILROADS and STEAM NAVIGATION, etc.; Mercantile Systems, Codes, Laws and Decisions, ancient as well as modern, Banking Insurance, Exchange, Partnership, Factorage, Guaranty, Brokerage, Bankruptcy, Wreck, Salvage, Freights, Privateering, Marque and Reprisal, Piracy, Quarantine and Custom House Regulations, etc., etc.; COMMERCIAL LITERATURE AND BIOGRAPHY.

PROSPECTUS TO THE THIRD AND FOURTH VOLUMES.

THIS work has been regularly published nearly two years. Its success has been signal throughout the whole SOUTHERN AND WESTERN COUNTRY, and its subscription list steadily and rapidly increased there and in other sections of the Union. In this brief period it has gained a larger circulation than any other Southern work, and the strongest influence. Complimentary letters and notices have been received from every source, even the very highest, as could be shown did space permit. The COMMERCIAL REVIEW has advocated and upheld the

Commerce and Agriculture of the Southern and Western States,
and exhibited from time to time their complete

STATISTICS,

in such a manner as could not but have secured the best results. The papers which have appeared upon SUGAR and upon COTTON, upon TOBACCO and RICE, and MANUFACTURES, upon THE PROGRESS OF OUR COMMERCIAL RELATIONS with all nations, and upon MEXICO, may be stated as examples. Indeed, this has been admitted from many sources. Although devoted in its aims to the development and exhibition of the

Resources of the South and West,
the Commercial Review neglects no view of

American and European Industry and Enterprise,

in every department, and must be of equal value to AMERICAN CITIZENS wherever they are found. Is there a section of the Union, too, of an interest which has no concern with the progress and resources of the GREAT WEST, of which the Commercial Review is the faithful exponent?

COMMERCIAL REVIEW.

TESTIMONIALS.

If the Index of contents now published were not sufficient evidence of what the work has been and is, we might remark that it has been highly commended to us, among others, by the Hon. Henry Clay, Hon. J. C. Calhoun, Hon. J. Q. Adams, Hon. Levi Woodbury, Hon. E. Burke, Patent office, Hon. Abbot Lawrence, Hon. Joel R. Poinsett, the most important chambers of Commerce, etc., etc. A host of letters might be easily published, and notices from Journals of highest character; as the *Union* and *National Intelligencer*, *Courier and Enquirer*, *Charleston Courier*, *Mercury*, *Patriot*, and *News*, *New York Courier and Enquirer*; all the New Orleans papers and others throughout the country—*Skinner's Farmers' Library*, *Hunt's Merchants' Magazine*, *Simmond's London Colonial Review*, etc., etc.

Improvements for the Fourth Volume.

At the opening of a FOURTH VOLUME, it is well to state that there are many great and important improvements now in course of preparation, which must add greatly to the interest and value of the Review, some of which this number will evidence.

1. Regular monthly *Summaries of American Commerce* will be prepared by one of the ablest writers upon such subjects in the Union.
2. A similar *European Correspondence* is secured, and publications will be made.
3. No pains has been spared to obtain the pens of the ablest *American writers* for the work.
4. A series of papers will be published beginning with the present number, and extending through one or two years, from the pen of the editor and other collaborators upon

I. SUGAR.

II. COTTON AND COTTON MANUFACTURES.

III. STATISTICS AND RESOURCES OF THE GREAT WEST.

A regular series will also be published upon *Silk*, *Wool*, *Hemp*, and similar subjects of agriculture and manufactures. The first of the series appearing in our November or December Number upon *Silk*, being an elaborate and valuable paper, full even to details, from an able and practical pen, aided by all the statistics of the Patent office, and illustrated with numerous wood-cuts. This Treatise will be invaluable.

5. A Department of *American Mercantile Biography* will be embraced, of leading characters taken from the *Merchant Classes* in every section of the Union, embellished with *STEEL ENGRAVINGS*, a feature to be first introduced by us in this country. These, in addition to the engravings we have already published, and *wood-cuts*, greatly increase the expense of publication. *Maps*, etc., will, if possible, be introduced.

6. The typographical execution of the work, paper, binding, etc., will be of the most superior order, not excelled by that of any other publication.

7. The work will be enlarged, and will contain

Monthly, from 112 to 128 Pages, in Close Type,
and annually be embraced within

TWO HANDSOME VOLUMES OF SIX HUNDRED PAGES EACH.

This is an *increase of size* equal to one-third over previous numbers and volumes.

8. The work will be *stereotyped*, and issued regularly on the first of each month, and furnished to subscribers without delay, and in the most secure manner; great improvements having taken place in the arrangement of our office.

The subscription price will be unchanged, but the greatest promptness in payments will be required from subscribers. We beg each of them to make use of this paper in acting as our friendly agent to increase the circulation. We would be glad to *present our work without charge, for one year*, to any one who would procure *three permanent subscribers* and forward us the money in advance.

We have kept our promises in the past, as the *Commercial Review* will evince, and shall keep them in future.

COMMERCIAL REVIEW.

Bound Volumes of Commercial Review for 1846.

We are happy to announce that a *reprint* of these in *two handsome Volumes* will be issued about the 1st of November from the press. The style of execution and finish is most superior. As the numbers for 1846 have great value and were much sought, and as we have not been able to furnish them for many months back to our orders, this *re-publication* must pass through a very large edition. We have not, however, ventured to print many at first, but only to supply our orders, &c. Those persons who would complete their sets, had better do so at once; and all of our subscribers, new as well as the old, will be furnished the Volumes for 1846, *bound in very superior style*, for the subscription price remitted us, *without any extra charge for binding*. We are ready to supply from the beginning, and offer these accommodations that all may have the work complete. This arrangement to extend to no other Volume.

Editors of Newspapers not Receiving the Review,

Who will remit us *two dollars*, and acknowledge, *occasionally*, the Numbers of the work, and the Circular we send them *now*, will receive it for one year. We should be happy to furnish the press, who have been so liberal to us in the past, *without charge*, but the expenses are too great; we, however, make what may be considered a liberal offer.

A PREMIUM.

We will present any one who will send us *two new subscribers and the money*, without postage or discount, the *Review for 1846*, in one complete Volume, *bound*.

The Third Volume of Commercial Review, for 1847,

Is illustrated with **HANDSOME STEEL ENGRAVINGS AND WOOD CUTS**, representing the **CITY OF NEW ORLEANS**, the **BALIZE AT THE MOUTH OF THE MISSISSIPPI RIVER IN 1804 AND 1847**, the **ISTHMUS OF TEHUANTEPEC**, and the **SOUTHERN RAILROAD ROUTE TO THE PACIFIC OCEAN**.

Articles for Commercial Review.

We announce the following list of subjects for the coming Volumes, and invite contributions:

The prospect of American Hemp; the Copper and Lead resources of the North-west; the Gold Mines of the South; United States Mint and Branches; the Value, Character and Tests of Soil in the South and West; The Pilot System of New York and New Orleans; Changes in the Mississippi river; its banks and mouth; Summer Seats on the Gulf and Texas coasts; Internal Improvement Schemes at the South and West; Texas as a State; The Santa Fe and Mexican Trade; Our position with Mexico; New Orleans in the Past and in the Future; Historical Sketches of the States; Sketches of Southern and Western Cities; Manufactures of the South and West; Sketches of the Biography of Eminent Practical Citizens; Essays on Commercial Law, Commercial Decisions, etc.; Lafitte; Coins; The Polar Seas; Weights and Measures; American Treaties; Canals; American Railroads; Steam Navigation; The Mines; Banks and Banking; Western Rivers; Southern Manufactures; Trade in Breadstuffs; Commerce of Cuba; Light-house System; Coast Survey; Iron and Coal of Pennsylvania; Florida; Resources of North Carolina; Virginia; Trade, &c., Baltimore, New York, Boston; Lumber Trade of Maine, &c.; British Colonial Trade; Trade of European Powers; American Fisheries; The Slave Question; The Ocean; The Printing Art; Naval Stores; Provisions; Production of Ardent Spirits; The Book and Paper Business.

Letters in relation to the Review will be directed, post-paid, to the editor, J. D. B. De Bow, or to the publisher,

B. F. DE BOW,

Office of Commercial Review, New Orleans.

It is desirable that all past accounts shall be early closed; agents will please exert themselves. Specimens of the Review for examination will be sent to *reasonable persons* who apply.

COMMERCIAL REVIEW.

We will be pardoned for extracting from the mass of notices in our possession two or three which happen at this instant to be at hand. It is better, however, that the work should speak for itself.

From Hunt's Merchants' Magazine.

"DE BOW'S COMMERCIAL REVIEW for May contains much valuable matter of a Commercial and Miscellaneous character. It has reached its *seventeenth* Number, which is, in our opinion, the best of the series. Success to our name-sake.

"The No. for June and July opens with an elaborate and highly interesting paper, on the 'Romance of Louisiana History,' from the pen of the Hon. Charles Gayarre, Secretary of that State. There are also articles of value to the agricultural interests of the South, on the introduction of new products, as the vine, the cork, camphor, flax, etc.; and the cotton-worm, in its history, character, visitations, etc., forms the subject of another article. Dr. Hort, of New Orleans, has furnished a scientific analysis of Texas sugar soils. But the paper which has interested us the most, is that entitled 'COMMERCE AND AGRICULTURE SUBJECTS OF UNIVERSITY INSTRUCTION,' from the pen of the accomplished editor of the Review, in which he submits the plan of a Professorship of Public Economy, Commerce, and Statistics for our Colleges and Universities. The plan has our hearty approval, and will, we trust, ere long be adopted by some of our higher institutions. The article on 'CHARLESTON AND ITS RESOURCES,' we shall endeavor to find room for in a future number of this Magazine."


From the New Orleans Commercial Times.

"DE BOW'S COMMERCIAL REVIEW.—This able exponent of the position, exigencies, prospects, &c., of the trade and commerce, the agriculture and manufactures of the South and West, comes to us in its present issue in a double form, containing the June and July numbers under one cover. There are fifteen original articles, each of which has its particular merit. They treat of subjects embracing almost every interest connected with the development of Southern and Western prosperity, and we may add, indeed, in reference to the first article, of Southern and Western refinement. Article No. 5 is eminently deserving notice, as the matter brought forward in it is of a character that imperatively addresses itself to our most prominent interest. Shall not Commerce have a chair in the newly established University of Louisiana—Commerce, the all-in-all of our wealth? We concur with the editor, that without a Professorship of 'Statistics'—a science embracing such a variety of subjects, all united under the head of Industry, in its various applications, remote and near—the University will be comparatively a lifeless, inert mass, while 'STATISTICS' will strip it of its monkish dullness and passiveness, and invest it by its practical quality, with that vitality which shall be, and is, characteristic of our age and nation. The whole publication, in its several departments, evinces talent and extraordinary industry."

From the Concordia Intelligencer, of Louisiana.

"The great industry and ability with which this periodical has addressed itself to the wants and practical interests of the people of the South and West, have secured for it a high and established reputation, and many powerful and zealous friends among the most enlightened and productive classes in this and contiguous States. Already have many articles appeared in it which have been deemed of inestimable benefit to those engaged in Sugar and Cotton culture. Of some of these articles, it has been said by citizens of Louisiana, distinguished alike by their private excellence and public zeal, that each of them was worth the subscription price of twenty years to the work. Their value is not imaginary or prospective, but immediate and real, and comes home to the daily pursuits of the planter and merchant and all interested in increasing the wealth of the South-west.

"The Review improves with every succeeding number. It has been greatly beautified in typographical execution and otherwise lately, and is now one of the most handsome monthly periodicals in the world, as well as decidedly the most practical, laborious and useful publication of the kind with which we are acquainted."

 A splendid steel engraving of Stephen Girard accompanies the September No.—the first of a series of "Eminent Merchants."

H. LONG & BROTHER,

33 Ann Street, New York.

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No. 1.

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THE

COMMERCIAL REVIEW.

Volume IV.

SEPTEMBER, 1847.

No. 1.

Art. I.—THE DIGNITY AND IMPORTANCE OF COMMERCE;*

ILLUSTRATED IN THE HISTORY AND PROGRESS OF THE GREAT WESTERN STATES AND TERRITORIES OF OUR COUNTRY.

It is especially gratifying to witness the spirited and successful effort to disseminate the advantages of literature throughout the commercial circles of a large city; for the numbers, the energy, and the wealth of this class, render it important that their intellectual and moral character should be cultivated, and their influence well directed.

In estimating the relative standing and influence of the different classes of our population, there are, I think, two very grave mistakes usually committed: one of which assigns the highest place in the scale of merit to manual labor, while the other disdains, as low and coarse, all that partakes of physical exertion: by the one class, the farmer, the laborer, and the mechanic, are lauded as wielding the creative power by which all the elements of wealth are brought into existence; by the other, the members of the learned professions are

* The following paper was prepared by Judge Hall, at the request of the Mercantile Library Association of Cincinnati, and read before them. It abounds in historic interest, and emanates from one of the most gifted minds in the west—the author also of several works upon that region.

The Mercantile Association of Cincinnati evidences great prosperity. Its Annual Report for 1847 has been politely furnished us by JAMES LUTTON, Esq., *Corresponding Secretary*, with a communication from which we make this extract:—“The intimate commercial relations of New Orleans and Cincinnati, and many other reasons judiciously presented, should, I think, procure for your *COMMERCIAL REVIEW* a subscription list in this city at least equal to any in our western or south-western cities. The press, so far as I recollect, has spoken of your journal with unqualified praise.”

The Mercantile Association are now the owners in perpetuity of a suit of rooms in the splendid edifice of the Cincinnati College. Its newspaper list includes 27 daily papers, 3 tri-weekly, 1 semi-weekly, 12 weekly, and 2 semi-monthly. Its magazine list 7 quarterlies, 1 bi-monthly, 9 monthly, and 1 weekly. Within the past year the library has been increased by the purchase of 246 vols.—donations of 268—magazine volumes 32—aggregate cost, \$282 46. Whole number of books in the library, 4786. Number of new members in 1846, 263, viz.: 3 life, 198 active, 62 honorary—whole number of members, 1007, viz., 69 life, and 938 active.

revered as the depositories of all knowledge, the makers and arbiters of public opinion; and these respective classes have been courted and flattered by those who have sought to rise upon the breath of popular favor.

The truth lies, we suppose, between these extremes. While we concede to the hard hand of labor, a vast amount of power, utility, and consequent influence, and grant to intellect and education the force of a mighty lever, it will require but little reflection to satisfy us that the resources of this country are controlled chiefly by that class, which in our peculiar phraseology we term "the business community," embracing all those who are engaged in the great occupations of buying and selling, exchanging, importing and exporting merchandise, and including the banker, the broker, and the underwriter. In a population so active as ours, and spread over so wide an expanse of territory, with lands so prolific, a climate so diversified, productions so various, mineral treasures so vast, and facilities for interior navigation so great, the pursuit of commerce must form a prominent occupation. The commercial and fiscal concerns of such a people cannot be otherwise than important. We have no hesitation in asserting that they employ more of the wealth, the industry, and the intellect of the American people, than all other employments and professions united. Vast and vastly diversified, they extend to every place, and are interwoven with every occupation. Commerce is limited only by the boundaries of civilized intercourse. Wherever men congregate in social life, it is there; in the most obscure hamlet it is found among the first elements of the most simple form of society; in the proudest metropolis, it employs the highest energies of the human intellect, and is seen in the most magnificent displays of wealth and power. The vast navies that circumnavigate the globe are hers, great cities acknowledge her sway, her merchants are princes, the revenues of mighty nations are under her control. She is the arbitress of war and peace.

names we select the following, as most liberal and worthy of preservation and imitation:

W. G. Breese,	\$300	B. Boylan,	100	B. Mathewson,	100
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BOARD OF DIRECTORS, 1847.

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Under the influence of that fell spirit of demagoguism which has swept over our land, it has become fashionable to flatter the agricultural and laboring classes, because they are the most numerous, and wield the greatest power at the ballot boxes; while a systematic effort has been made to decry the merchant and the banker, and to stigmatize their business as inimical to the liberty and prosperity of the country. We might pass over these incendiary doctrines with the contempt they deserve, if it were not for the wide-spread mischief which they work, by deluding, to their own injury, the numerous classes whom they are intended to cajole and flatter. The laborer and mechanic are taught to dislike the banker, whose means furnish them with daily employment, and the farmer's mind is diligently imbued with a settled hatred for the merchant, without whose assistance his crops would rot upon the field. The prosperity of the country, its peace, its character, and its credit, are deeply affected by the too successful influence of these wretched intrigues. The masses are imbued with the opinion that wealth and poverty, commerce and labor, education and the want of education, constitute hostile interests; and the legislative halls are disgraced by an abject subserviency to those prejudices, which has banished justice, and patriotism, and manly freedom of thought, from that high sanctuary of sovereign power. Even the bench has not been free from these pernicious opinions, and demagogues have been found so hardened and so daring as to carry into that sacred tribunal the profligate pledge of party obedience, and to consummate there the atrocious proscription of individuals and classes.

It appears by the census of 1840, that the number of persons in Ohio engaged in Commerce, in Agriculture, and in Mechanical Labors and Trades, was as follows:

In Agriculture,	272,579
Manufactures, Mechanics, and Trades,	66,265
In Commerce,	9,291

By this showing, it appears that the disparity between these classes is very great, that the oppression attempted to be practised by the many over the few, is at least *safe* to the agents employed in the experiment; and that however abject and unjust, however repugnant to the constitutional principles of equality and democracy, such appeals to the prejudices of the mass may be, the demagogues who use them, do so in the confidence of an impunity guaranteed by an odds of thirty to one in their favor.

The streams of water which afford beneficent supplies of that necessary element to our city, are distributed by the force of a powerful engine. Situated at a distance, and silently performing its appointed office, its gigantic action is unobserved by the mass of human beings who enjoy the benefits of its incessant labor—who derive refreshment, comfort, health, and perhaps life itself from its operations. Through the agency of that powerful machine, the healthful current circulates throughout all the avenues of the city; it is present in every street, it is used in every dwelling; yet the agent that distributes a blessing so universal and indispensable is by no means obvious to the casual observer. It is so with commerce; though its advantages are

sion is so small in comparison with the aggregate of society, and their transactions, especially those of the greatest magnitude, attract so little attention, that the observation of the public is not awakened to a just appreciation of the mercantile character.

We have chosen, therefore, as a topic for this occasion, **THE DIGNITY AND USEFULNESS OF COMMERCE**,* which we shall endeavor to illustrate from the familiar facts of our own recent history. We might, indeed, appeal to the annals of the world, from the earliest times, to show that commerce has always led the van in the great march of human improvement—in the discovery of new countries—in promoting the intercourse between nations—in affording employment to industry and ingenuity—in promoting science and diffusing knowledge—in adding to social comfort—in the spread of civilization and Christianity. We might refer to Greece and Rome, in the dark periods, when little else was regarded than fighting and the fine arts—to Venice and Genoa—to the brightest ages in the histories of Holland and of England—and to the whole history of America, from its discovery until now, for proofs that commerce is the most efficient agent of national prosperity. The occasion will not, however, allow us to enter upon so wide a field; and we shall confine ourselves to our own country, and to recent times.

Allow us, then, to occupy a few minutes in presenting some of the prominent facts in our history, for the purpose of inquiring, what are the obligations of the country to the class of our citizens who are engaged in commercial pursuits—and we are sorry that the subject is so broad and so varied in its details, that it is impossible to do it justice in the brief space of a single discourse.

The French, who first explored our northern frontier, ascended the great chain of lakes to Huron and Michigan, and afterwards penetrated through Lake Superior, to that remote wilderness, where the head branches of the St. Lawrence interlock with those of the Mississippi. Adopting, and probably improving the bark canoe of the natives, they were enabled to traverse immeasurable wilds, which nature had seemed to have rendered inaccessible to man, by floods of water at one season, and masses of snow and ice at another, by the wide spread lakes, and ponds, and morasses, which in every direction intercepted the journey by land, and by the cataracts and rapids, which cut off the communication by water. All difficulties vanished before the efficiency of this little vessel: its wonderful buoyancy enabled it, though heavily freighted, to ride safely over the waves of the lakes, even in boisterous weather; its slender form and lightness of draught permitted it to navigate the smallest streams, and pass the narrowest channels; while its weight was so little, that it was easily carried on the shoulders of men from one stream to another. Thus when these intrepid navigators found the river channel closed by an impassable barrier, the boat was unloaded, the freight, which had previously been formed into suitable packages for that purpose, was carried round the obstruction by the boatmen, the boat itself performed the same journey, and then was again launched in its proper element. So, also, when a river had been traced up to its

* See Commercial Review. Vol. I. Second Edition, reprint.—Ed.

sources, and no longer furnished sufficient water for navigation, the accommodating bark canoe, like some amphibious monster, forsook the nearly exhausted channel, and traveled across the land to the nearest navigable stream. By this simple but admirable contrivance, the fur trade was secured, the great continent of North America was penetrated to its centre, through thousands of miles of wilderness, and a valuable staple brought to the marts of commerce. If we regard that little boat as the means of bringing to market this great mass of the treasures of the wilderness, we may well remark, that never was an important object effected by means so insignificant. But the human labor, and peril, and exposure—the courage, the enterprise, and the skill employed, were far from insignificant. The results were great. Besides the vast trade which was developed, the interior of a great continent was explored—the boundaries between two empires were traced out and incidentally established—an intercourse with the Indian tribes was opened, and valuable facts were added to the treasures of science. And all this was accomplished, not by the power of an empire—not by the march of a conqueror impelled by military ambition or the lust of conquest—not by a lavish expenditure of money, or the shedding of human blood—but by the action of humble individuals acting under the great stimulus of commercial enterprise.

Turning our attention to another part of that great theatre of early adventure, we see the bold explorers crossing from the Lakes to the Mississippi, passing down and up that river, tracing its gigantic course from the Gulf of Mexico to the Falls of St. Anthony, erecting forts, planting settlements, and, in short, establishing a chain of posts and colonies, extending from the mouth of the Mississippi, westward of the British Colonies, to the mouth of the St. Lawrence. The adventurers to Louisiana sought the precious metals; imaginary mines of gold and silver allured them across the ocean, led them to brave the terrors of the climate and the wilderness, and sustained them under the greatest extremes of toil and privation. Though disappointed in the object of their search, they became the founders of an empire; they explored and developed the resources of the country; they led the way to that flood of emigration which has been gradually filling up the land, and scattered the germs of that prosperity which we see blooming around us, and promising harvests too great to be estimated.

When the sagacious eye of Washington first beheld the country lying about the head waters of the Ohio, he saw and pointed out the military and commercial advantages which might be secured by its occupation. Had the annexation of this country to the American Colonies, or at a later period to the States, been made a political question, how various would have been the opinions, how deliberate the discussion, how slow the action, how uncertain the result! But this splendid example of national aggrandizement was not achieved by the wisdom of statesmen, nor by the valor of armies. No sooner had a few daring pioneers settled in the wilderness, than the eager spirit of trade, ever on the watch for new fields of adventure, discovered the rich promise of gain offered by a region so wide and so fertile. Commerce did not then, nor in any instance in the settle-

wrinkled front," as is supposed to be her usual custom. However pacific in her tendencies, she did not shrink from a full participation in the perils of this glorious adventure. Following the footsteps of the pioneers, she came with the advance of the army of population.

The first settlements in the West were made by the backwoodsmen from Virginia and North Carolina, who were soon after followed by those of Pennsylvania and Maryland. New Jersey came next in the order of population; and from these sources originated that gallant band of pioneers who explored the country, drove back the savage, and opened the way for civilization. They were a daring, a simple, and an honest people, whose history is full of romance—but it is not with the romance of history that we have now to do. Simple and frugal as they were in their habits, they were still civilized men—branches of the great social circle whose centre glowed with the brightest refinements of life—and they had some artificial wants beyond the mere fruits of the earth and the products of the chase—while the country abounded in the crude materials which promised an abundant supply of articles for barter.

Wherever there is a prospect of gain, there will the adventurous feet of commerce thread their way, however dreary the path, however difficult or dangerous the road. While the whole Alleghany ridge was still an unbroken mass of wilderness, trains of pack-horses might be seen climbing the mountain sides, by the winding bridle-path, threading the meanders of the valleys and gorges, trembling on the brinks of precipices, and sliding down the declivities, which scarcely afforded a secure footing to man or beast. They were laden with merchandise for traffic. The conductors were men inured to all the hardships which beset the traveler in the wilderness—men who united the craft of the hunter to the courage and the discipline of the soldier; for the road they traveled was the war-path of the Indian—it was the track that had been beaten smooth by the feet of them that sought the blood of the white man, and who still lurked in the way, bent on plunder and carnage. There was no resting-place, no accommodation, no shelter. Throughout the day they plodded on, through the forest, scaling steep acclivities, fording rivers, enduring all the toils of an arduous march, and encamping at night in the wilderness; observing the precaution and the discipline of a military party in a hostile country. These were merchants, carrying their wares to the forts and settlements of the West; they were the pioneers of that commerce which now employs the wealth and controls the resources of an empire. They deserve a high place among the founders of Western settlements, as they furnished the supplies of arms, ammunition, clothing, and other necessaries, which enabled the inhabitants of the frontier to sustain themselves against the hostilities of numerous tribes of Indians, incited to war by British influence, and supplied with the implements and appliances of savage warfare by the agents of the same humane and enlightened people.

The first boats used in the navigation of the Western rivers, were the flat boat, the keel, and the barge; the first of which was only used in descending with the current, while the two latter ascended the streams, propelled laboriously by poles. Navigating long rivers where the current will be foisted by hostile savages, the boatmen were

armed, and depended for safety upon their caution and their manhood. Mike Fink, the last of the boatmen, was an excellent marksman, and was as proud of his ability to defend his boat, as of his skill to conduct it through the rapids and windings of the navigation. The Indians, lurking along the shore, used many stratagems to decoy the passengers and crews of the boats to land, and those who were unsuspecting enough to be thus deceived, fell an easy prey to the marauder. Under the best circumstances these boats were slow, and difficult to manage; the cost of freight was enormous, and the means of communication uncertain.*

The application of steam power to the purposes of navigation, forms the brightest era in the history of this country. It is that which has contributed more than any other event or cause, to the rapid growth of our population, and the almost miraculous development of our resources. We need not pause to inquire whether the honor of the invention be due to Fitch, to Rumsey, or to Fulton—for that inquiry is not involved in the discussion in which we are now engaged. But if we seek for the efficient patron of this all-powerful agent—for the power that adopted, fostered, improved, and developed it, from an unpromising beginning, through discouragement, failure, disappointment, through peril of life, vast expenditure of money, and ruinous loss, to the most complete and brilliant success—we are again referred to the liberal spirit of commercial enterprise. Science pointed the way, but she did no more; it was the wealth of the Western merchant, and the skill of the Western mechanic, that wrought out the experiment to a successful issue. The first fruits of the enterprise were far from encouraging; failure after failure attested the numerous and embarrassing difficulties by which it was surrounded. For although all the early boats were capable of being propelled through the water, and although the last was usually better than those which preceded it, it was long a doubtful question, whether the invention could be made practically useful upon our Western rivers; and it was not until five years of experiment, and the building of nine expensive steamboats, that the public mind was convinced by the brilliant exploit of the *Washington*, which made the trip from Louisville to New Orleans and back in forty-five days!

The improvements in this mode of navigation since then have been surprising. The voyage from New Orleans to Louisville has been made in less than six days. The trip from Cincinnati to New Orleans and back is made easily in two weeks. During the high water, in the spring of this year, the trip from Pittsburgh to Cincinnati was made in twenty-seven hours, and the packet-boats between these places, have now regular days and hours of departure.

Explosions and other destructive casualties have become rare, and the navigation is now safe, except only from obstructions existing in the channels of the rivers. All that skill, enterprise, and public spirit could do, to bring this navigation to perfection, has been done by the liberal proprietors of steamboats. The wealth of individuals has been freely contributed, while that of the government has been withheld with a degree of injustice which has scarcely a parallel in the annals

of civilized legislation. The history of man does not exhibit a spectacle of such rapid advancement in population, wealth, industry, and refinement, such energy, perseverance, and enlightened public spirit on the part of individuals, as is exhibited in the progress of the Western people—nor of so parsimonious and sluggish a spirit as that evinced towards us by the Government. All that we have, and are, are our own, created by ourselves, unaided by a government to whose resources and power we are now the largest contributors. We build and maintain a fleet of five hundred steamboats, bearing annually a freightage of more than two hundred millions of dollars—while we are subjected to an immense yearly loss of life and property, from the narrow and unwise refusal of the government to make a comparatively small expenditure to remove obstructions from the channels of rivers, over which it has the sole jurisdiction.

By our own unaided exertions we have now actively employed in the transportation of passengers and merchandise, more than five hundred steamboats, worth ten millions of dollars, having the capacity of one hundred thousand tons, and plying upon a connected chain of river navigation of twelve thousand miles in extent.

The value of the Exports and Imports floating on the Western waters annually, has been estimated at two hundred and twenty millions of dollars, consisting of the products of our soil and manufactures on the one hand, and of the fabrics of foreign countries upon the other, all bought with the money of our merchants, and by them thrown into the channels of trade.

If the mercantile class had rendered no other service to our country, than that of introducing and fostering the agency of steam, in navigation and manufactures, they would have entitled themselves to more lasting gratitude and honor, than the most illustrious statesman or hero has ever earned from the justice and the enthusiasm of his country.

Previous to the year 1817, the whole commerce from New Orleans to the upper country was carried on in about twenty barges, averaging one hundred tons each, and making but one trip in the year; so that the importations from New Orleans, in one year, could not have much exceeded the freight brought up by one of our largest steamboats in the course of a season. On the upper Ohio, there were about one hundred and fifty keel-boats, of about thirty tons each, which made the voyage from Pittsburgh to Louisville and back in two months, or about three such trips in the year. That was but thirty years ago; and need I pause to inquire what would have been the probable condition of our country at this time, had our commerce continued to be dependent upon such insufficient means of conveyance?

The pioneers were a noble race, and well did they discharge the part assigned them. They led the way into the wilderness. They scaled the ramparts of the Alleghany mountains, that seemed to have been erected as barriers against the footsteps of civilized men. They beat back the savage and possessed the country. Their lives were full of peril and daring; their deeds are replete with romance.

The farmers who have subdued the wilderness, are hardy and laborious men, who have been well designated as the bone and muscle of the country. They have cheerfully encountered obstacles from which

a less resolute body of men would have shrunk in despair, and have won the fruitful fields which they possess through toils and dangers such as rarely fall to the lot of the husbandman.

But without detracting from the merits of either of these classes, what would this country have been now, without commerce? Suppose its rural population had been left to struggle with the wilderness without the aid of the numberless appliances which have been brought to their doors by the spirit of trade, to what point would their population and their prosperity have risen? Without money, without steamboats, canals, railroads, turnpikes, and other facilities for transportation, what would have been the destiny of our broad and fertile plains? Desert and blooming, they would have sustained a scattered population, rich in flocks and herds—a roaming, pastoral people, whose numbers would have grown by the natural increase; while the country would have remained unimproved, and its rich resources locked in the bosom of the earth. But commerce came, bringing them a market for their products, offering rich rewards to industry, and stimulating labor to the highest point of exertion. She brought with her money, and the various representatives of money; established credit, confidence, commercial intercourse, united action, and mutuality of interest. Through her influence the forests were penetrated by roads, bridges were thrown over rivers, and highways constructed through dreary morasses. Traveling was rendered easy and transportation cheap. Through this influence the earth was made to yield its mineral treasures; iron, lead, copper, coal, salt, saltpetre, and various other products of the mine, have been taken from our soil, and brought into common use. Our agricultural products have increased, and are daily and hourly increasing, in variety and value; while in every village is seen the smoke of the manufactory, and heard the cheerful sounds of the engine and the hammer.

Such have been the trophies of commerce; and still the same salutary spirit is abroad in our land. There is no page in the history of our country more surprising, or richer in the romance of real life, than that which depicts the adventures and the perils of the traders and trappers in the wilderness beyond our Western frontier. Leaving St. Louis in large parties, well mounted and armed, they go forth, with the cheerfulness of men in pursuit of pleasure. Yet their whole lives are full of danger, privation, and hardship. Crossing the wide prairies, and directing their steps to the Rocky Mountains, they remain months and even years in those savage wilds, living in the open air, without shelter, with no food but such game as the wilderness affords, eaten without bread or salt, setting their traps for beaver and otter in the mountain streams, and fighting continually with the grizzly bear, and the Indian—their lives are a long series of warfare and watching, of privation and danger. These daring men secure to us the fur trade, while they explore the unknown regions beyond our borders, and are the pioneers in the expansion of our territory.

So, too, of the caravans which annually pass from St. Louis across the great plains to Santa Fe. Their purpose is trade. They carry large amounts of valuable merchandise to the Mexican dominions, and bring back rich returns. But, like the trapper, they go armed

And here, too, we see the spirit of trade animated by an intelligent enterprise, and sustained by a daring courage, and an invincible perseverance.

Although addressing an association of young men, we see more than one venerable gentleman present, who bears in his memory the record of the last fifty years — and has been contemporary with some of those momentous events which disturbed the repose of the world. The rise of Napoleon — the expansion of that gigantic military power which had nearly conquered Europe — the lavish expenditure of blood and treasure by that mighty conqueror, that man of brilliant genius and stubborn will — are still recent events. Within that period kingdoms were overrun, nations conquered, crowns transferred : and who can forget the pomp, the circumstance, the terror, the dreadful carnage that attended those great national changes ?

Within the same period the great plain of the Mississippi was a wilderness, embracing a few feeble and widely scattered colonies. Here also arose a mighty conqueror, more powerful than an army with banners. A vast region has been overrun and subdued. The mountains have been scaled, the hills have been leveled, and the valleys filled up, and the rough ways made smooth, to admit the ingress of the invaders. The land has been taken. A broad expanse, extending over twelve degrees from North to South, and ten degrees from East to West, has been rescued from the dominion of nature and from the hand of the savage, and brought under subjection to the laws of social subordination. A population of seven millions has been planted upon the soil. Cities have grown up on the plains, the fields are rich with harvests, and the rivers bear the rich freights of commerce. This has nearly all been effected without the horrors of war — without national violence — without the domestic affliction usually attendant on the train of conquest. The conquests of the warlike Emperor have vanished, and his greatness perished like an airy fabric ; while a commercial people, using only pacific means, have gained an empire whose breadth and wealth might satisfy the ambition of even a Napoleon. They have gained it by labor, by money, and by credit ; by the muscular exertion of the farmer and mechanic, aided by mercantile enterprise and fiscal ability.*

The great West has now a commerce within its own limits, as valuable as that which floats on the ocean between the United States and Europe. In that wide land, where so lately the beaver and honey-bee were the only representatives of labor, and a painted savage the type of manhood, we manufacture all the necessaries of life, letters and the fine arts are cultivated, and beauty and fashion bloom around us.

We have in the West and South-west, an incorporated banking capital of fifty millions of dollars, affording, with its circulation of notes, a capital of about one hundred millions of dollars for business ; and however much the demagogue may rail against these institutions, there can be no question that their capital is so much actual power, wielded by the commercial class for the benefit of the whole country. The poor may envy the rich the possession of that of which they feel the want — the demagogue may decry credit for the same rea-

son; but the truth is that this country has grown rich through the money of banks and the enterprise of merchants. The farmer has been the greatest gainer from the general prosperity. Commerce has supplied money to purchase his products; the building of mills, the creation of roads, canals, and steamboats, are due to the enterprise of commerce, but they bring a market to the farmer. The agricultural products, which, but a few years ago, were not worth the labor of production, are now sources of wealth to the farmer — of vast aggregated wealth to the State.

In 1795, when the troops of Wayne triumphed over a numerous Indian force, the whole territory of Ohio was a wilderness; now we have a population of two millions, actively engaged in the various pursuits of industry, a country rich in resources, highly improved, and intersected in every direction by turnpike-roads, railroads, and canals; the aggregate extent of the artificial communications made by the State being over fifteen hundred miles, and their cost more than fourteen millions of dollars. And these are not military roads, constructed by the patronage of the government; neither are they the highways of a rural people, required for the purposes of social intercourse; they are the avenues of commerce — the arteries of our great commercial system, through which wealth and property circulate throughout the broad land, nourishing its prosperity into healthful and lusty vigor — created by the wants, the influence, and the wealth of commerce.

Fifty years ago the national flag waved over a lone fortress, surrounded by a few log huts, on the spot we now occupy. Around it was the unbroken forest, penetrated only by the war-path of the Indian, and the track of the buffalo. Standing upon the ramparts of that fort, the eye of the beholder would have rested on the pristine verdure of the luxuriant forest, and on the placid stream of the Ohio, seldom disturbed, even by the light craft which then floated on her bosom — his ear would have heard at dawn the martial notes of the reveille, and at night the hooting of the owl, and the savage bay of the prowling wolf. Now we stand upon the same spot, in the centre of a populous city, surrounded by all the refinements of wealth and cultivation — a city numbering, with its suburbs, nearly one hundred thousand souls, and embracing a vast amount of the industry, the energy, and the excitement of business. Situated in the midst of a great agricultural region, with natural avenues, and artificial roads tending to it in every direction, it is unsurpassed as a market for the products of husbandry. The wonderful statistics of one of our staples have obscured the other elements of our prosperity from observation, and we are known chiefly by the fame of three hundred thousand hogs packed annually, at our pork houses, for exportation. Our exports of beef, flour, whiskey, butter, and other provisions, are equally abundant; and the aggregate is so great, as to make this the greatest provision market in the world. But even this is but a part of our business. Among our population we number ten thousand operatives engaged in manufacturing and the mechanic arts, who make a great variety of articles of wood, iron, brass, copper, tin, leather, cotton, wool, and other materials, making in all about one hundred and fifty different and distinct branches of manufacture, and

the annual value of whose products is about twenty millions of dollars. Among these are an average of thirty steamboats, which are built annually at a cost of five hundred thousand dollars.

The capital invested in commerce in this city is said to amount also to twenty millions of dollars, so that our trade and manufactures bear nearly equal proportions to each other.

The citizens of Cincinnati have shown great public spirit in the construction of railroads, turnpikes, and canals, leading into the city.* There are now no less than sixteen principal avenues concentrating here, the aggregate length of which is one thousand one hundred and twenty-five miles, and which will have cost twelve millions of dollars when completed, a liberal portion of which has been subscribed by the city in its municipal character, and by public-spirited citizens. All these were made for the transit of merchandise; they were made by commercial enterprise and liberality, for the benefit of commerce.

If we have been successful in showing that our prosperity has resulted from the enterprise of individuals, it will be readily seen that we owe it chiefly to the commercial class. Not that we would claim for them the sole honor, or deny the merits of others, for this would be as unreasonable as the fabulous dispute between the body and the limbs. We only place them in the foremost rank of an active, hardy, adventurous population, because, by controlling the wealth, the business, and the resources of the country, they have been the chief agents in its rapid aggrandizement.

And now allow us to touch for a moment upon a very important point, as connected with this discussion. It is one of paramount importance, and should receive a much more attentive consideration than we can give it, incidentally, on this occasion. What should be the character of those who act so important a part in the business of the country, who control its resources, direct its energies, and in a great degree form the moral standard which regulates the transactions of the whole people? The mercantile mind of our country is sufficiently keen. The pursuit of wealth, attracting as it does intellects of every grade, includes among its votaries many of the most aspiring and most capable minds; and gives to them that constant and healthy exercise, which is calculated to sharpen the faculties, and, if united with reading and reflection, produces a high degree of refinement. The merchant should cultivate his mind, and acquire knowledge, as an element of power. Dealing in the products of various climes, and of all the arts, and engaged in an intercourse, personally or by correspondence, which extends to all the marts of traffic throughout the world, he should be well acquainted with the geography of the globe, and with the productions, resources, habits, financial systems, and commercial usages of all nations. He should know thoroughly the composition and history, the mode of production, cost, and all other incidents, connected with every article in which he deals; and should be versed especially in the moneys and measures, the exchanges, the commercial laws and regulations, of the various places to which his business relations extend. This much we insist upon, as actually necessary to the respectability of the mercantile character, and to enable the merchant to wield his capital to advantage. But

* See *Art. Cincinnati Commercial Review*, Vol. II, 1846.—E.

the intelligent merchant should aspire to more than this. His position in society demands that he should place himself upon an equality with the most cultivated of his fellow-citizens. As a class, the merchants are the most wealthy men of our country. In social intercourse they mingle with the most refined, with those who are highest in intellectual standing and official position. There is no place in society, no post in the government, from which the merchant is excluded. On the contrary, his command of money, and the facilities afforded by his relations of business, place him in a prominent position, give him the control of the various commercial and moneyed institutions, and render him the fit and active director and agent in the whole circle of public charities, and in the numberless endowments for literary and liberal purposes. Having thus opened to him a wide sphere of usefulness, he should enter upon it with a consciousness of its dignity and importance, and qualify himself for the discharge of its duties by an assiduous and liberal cultivation of his mind and morals.

The merchant should be a patron of the arts, a promoter of education, a friend to literature and science, an active agent in all public improvements; because his habits of business, his wealth, his connection with moneyed institutions and with fiscal concerns, enable him to render efficient aid to enterprises of patriotism and benevolence. He should be forward in every good word and work, also, as a means of blunting that vulgar prejudice, which supposes that the men who possess or control wealth, enjoy exclusive privileges; and should show a willingness to pay liberally for the advantages of his position, whether real or imaginary, by using those advantages freely for the public good.

There is another point in regard to the commercial character, of greater delicacy, but which we do not feel at liberty to pass untouched, as it is the most essential to the honor and the prosperity of the mercantile class, as well as of the community to which they belong. The most precious possession of the merchant is his *credit*. And here allow us to draw a distinction: the credit of the merchant does not consist simply in his wealth, or in his ability to borrow money by means of his connections, or of the securities he may be able to offer. It is a gross fallacy to suppose that what is termed an "undoubted standing," requires nothing for its support but the possession of *facilities* for raising money. The credit of a merchant depends mainly on his character for integrity, capacity, and industry. The true merchant is a man whose morality is as inflexible as the rules of arithmetic: his honesty is as invariable as the result of a correct balance-sheet. He should be not only honest, but strictly honorable, so that the confidence reposed in him should be unlimited. Such a man is trusted, not merely on account of his wealth, but in consideration of his personal character.

The commercial virtues are so essential to the well-being of society, that their cultivation should be an object of sedulous care to the whole mercantile body, who should exercise a conservative influence by frowning upon every infraction of the laws of fair trading. Punctuality should be insisted upon as an indispensable requisite, and no man should be trusted or tolerated, who would forfeit his word, or violate his engagements. Society has a right to demand of all its members

the observance of good faith, and it is only by insisting on this right that a wholesome public opinion is established.

Especially should the merchants of a city like ours, endeavor to establish a high tone of commercial character. They should set up a standard of strict and elevated morality, which every regular dealer and fair merchant would acknowledge to be just, and to which all should be required to adhere. They should patronize those virtues which adorn the individual character, which promote success in business, while they render its transaction safe and agreeable, and which are as beneficial as they are honorable to the community in which they flourish—industry, honesty, temperance, and prudent economy; while by inflexible rules and strict observances, they should discountenance fraud, deception, trickery, and bad faith.

When we speak of the rapid advancement of our country to its present high state of prosperity, we are easily led by national vanity into the employment of high-sounding words which do not always lead us to satisfactory conclusions. Patriotism, public spirit, benevolence—liberty, education, the freedom of the press, our liberal institutions, the benign and pacific policy of our government, are referred to as causes of our national growth and aggrandizement. We shall not dispute the happy influence of all these principles. But there is one element in the national character, one principle of action animating the entire mass of our people, which is greater than any other; nay, we will be bold enough to assert, more powerful than all others united. Whether it be called avarice, or the love of money, or the desire of gain, or the lust of wealth, or whether it be softened to the ear under the more guarded terms, prudence, natural affection, diligence in business, or the conscientious improvement of time and talents—it is still *money-making* which constitutes the great business of the majority of our people—it is the use of money which controls and regulates everything.

Whether the propensity for money-getting is beneficial or otherwise, depends upon circumstances. Industry is an admirable quality; its exercise is directly useful to the public as well as to individual interests, and it is accompanied by temperance, prudence, morality, and other virtues. But the desire of wealth, for its own sake, is far from being a virtue. Where money is greedily sought, without regard to the means of acquisition, and without liberality in its expenditure, the passion which directs its pursuit is base and sordid. The miser is a wretched man, a worthless citizen, a dishonor to the dignity of human nature.

We are happy to believe that the acquisition of wealth does not necessarily, nor as we hope usually, blunt the sensibilities, nor destroy the manliness of a generous character—that it is not always a selfish and a mercenary occupation. If money be sought with moderation, by honorable means, and with a due regard to the public good, no employment affords exercise to higher or nobler powers of the mind and heart. And such should be the character of the merchant. He should guard his heart against the seductive influence of money; he should carefully shield his mind against the narrow precepts of avarice. Money should be regarded as the agent and representative of the good it may be made to perform—it should be sought as the in-

strument of self-defense against the evils of poverty ; of parental love, enabling us to provide for those dependent on us ; of public spirit, in affording the means of promoting the public good.

In conclusion, allow me to congratulate you on the success of the institution whose anniversary we celebrate this evening. It has ceased to be an experiment, and is now a flourishing and a useful association, numbering, as I understand, more than seven hundred members, chiefly active young men engaged in mercantile pursuits—the Library contains five thousand three hundred volumes, the greater part of which are works of permanent value, and about six hundred volumes are issued to members each week. The influence of such a Society, with means so ample, and so well directed, cannot fail to be beneficial. It is important to the country that the merchants, controlling as they do its business and resources, should be well informed. It is still more important that they should cherish commercial virtues, and we hope much from such a body in elevating and sustaining for our city a high tone of mercantile honor. Cincinnati has earned a high name for its enterprise and energy. Be it your task, gentlemen, by the observance and inculcation of punctuality, integrity, and good faith, to maintain for her a credit which shall be undoubted, unspotted, and unfading.

ART. II.—PROGRESS OF THE GREAT WEST

IN POPULATION, AGRICULTURE, ARTS AND COMMERCE.

"Thou movest,
Like climbing some great Alp, which still doth rise—
Vastness which grows."
CHILDRE HAROLD.

THE immense regions of the American Union, westward of the Appalachian mountains, drained by the waters of the Gulfs of Mexico and California and the remote Oregon, swell upon the imagination in majesty and grandeur, contemplated in whatever light. In this semi-hemisphere exists every conceivable element of densest population, progress, enterprise, wealth, and highest civilization. Climates genial—soils prolific in all growths and without degree—rivers like inland oceans, for navigation and trade—minerals and forests unlimited. Westward is the tide of progress, and it is rolling onward like the triumphant Roman chariot, bearing the eagle of the republic or the empire, victorious ever in its steady but bloodless advances.

Four great valleys have their mountain ranges and divisions in this vast whole, which we have had the temerity to contemplate at a single view, as the heritage which our fathers left to us and to our children, and which we, so far from squandering, have wisely administered and enlarged—the *Valley of the Rio Grande*—the *Valley of the Colorado of the West*—the *Valley of the Oregon*—the *Valley of the Mississippi*.

Of course it would be impossible in the limits of a magazine like ours, to notice in detail the striking features and interesting charac-

teristics of each of these regions. We must confine ourselves, for the present, to one of them, which, indeed, presents material for volumes, and which at this day is most interesting, because most in progress—the MISSISSIPPI VALLEY. We shall, however, refer to each of the others casually; and in other numbers of the Review treat them with the same minuteness.

THE VALLEY OF THE RIO GRANDE.—However the question of boundary may be settled at the close of our war with Mexico, the Rio Grande must be an important region. It will no doubt be insisted upon as an ultimatum by our government. It already contains several considerable towns, and the island of Brazos, near the mouth, has been selected by the United States for the erection of hospitals and other public buildings, storehouses, &c. Point Isabel, on the main land at the mouth, has already classic interest, and must, from its admirable position, be the seat of an important commercial town. We are not exactly informed as to the draught of water, but know that its approaches are safe and accessible. It is a much more favorable site, we should think, than Brazos, the latter being liable to overflow, as in 1844 during the hurricane months, by the rise of the river, with great destruction of property. The Mexicans, aware of this danger, were indisposed to improvements at Brazos. Point Isabel is entirely safe from all of this.

An able writer in the *Houston Telegraph* thus speaks of the Rio Grande valley, from personal knowledge:

"We are confident that in a very short period of time, the Egyptian cotton will be cultivated here to as great or even a greater extent than in the valley of the Nile. The few experiments that have been made in the culture of cotton in the vicinity of Matamoras, have been remarkably successful. The cotton plant grows in this region with wonderful luxuriance, and yields an abundant crop almost without culture. The sugar cane also here grows to an enormous size, and far exceeds in its products the cane of Louisiana or any portion of eastern Texas. The climate is so mild in the vicinity of Matamoras, and as high up as Camargo, that the cane is seldom touched by the frost until it has attained a size nearly equal to that it attains within the tropics. The frosts, too, are generally so light, that they mature the cane at an earlier period than it would mature within the tropics; while at the same time the product of sugar is rather increased than diminished. It has been remarked by naturalists, that tropical plants are more productive without the limits of the tropics, and near the northern limits of their growth, than they are near the equator. If this doctrine is correct, the culture of the sugar cane will be found more productive in the lower portion of the valley of the Rio Grande than it is even in Cuba. Many valuable tropical fruits may also be cultivated in this section with great advantage. The orange, fig, pomegranate, and similar fruits, grow with wonderful luxuriance in the vicinity of Matamoras and Camargo. The portion of country extending from Point Isabel to Laredo, will, probably, at no distant day, be covered with extensive plantations of sugar cane, Egyptian cotton, and groves of oranges, lemons, figs, olives, and other tropical fruits, and rival in beauty and loveliness the fabled gardens of the Hesperides."

The Valley of the Gilae forms a part of this region. The Washington Union describes it from the settlement of El Paso:

"The settlement of El Paso extends from the falls of the Rio Grande on the north, to the Presidio on the south—a distance of twenty-two miles—and is one continuous orchard and vineyard, embracing in its ample area an industrious and peaceable population of at least eight thousand. This spacious valley is about midway between Santa Fé and Chihuahua, and is isolated from all other

Mexican settlements by the mountains that rise on the east and west, and close into the river on the north and south. The breadth of the valley is about ten miles. The falls of the river are two miles north of the 'Plaza Publica,' or public square, and afford sufficient water power for grist and saw mills, enough to supply the entire settlement with flour and lumber. The most important production of the valley is the grape, from which are annually manufactured not less than two hundred thousand gallons of perhaps the richest and best wine in the world. This wine is worth two dollars per gallon, and constitutes the principal revenue of the city. The El Paso wines are superior in richness of flavor and pleasantness of taste to anything of the kind I ever met with in the United States, and I doubt not that they are far superior to the best wines ever produced in the valley of the Rhine, or on the sunny hills of France. Also great quantities of the grape of this valley are dried in clusters and preserved for use during the winter, in this state I regard them far superior to the best raisins that are imported into the United States. Pears, peaches, apples, quinces, and figs are produced in the greatest profusion. The climate of this country is most salubrious and healthful.*

The mouth of the Rio Grande is about 480 miles from New Orleans, and may be reached in forty-eight hours in steam-vessels, touching at Galveston on the way.

THE VALLEY OF THE COLORADO OF THE WEST.—We are, of course, at a disadvantage here for precise or full information upon California. It will, without doubt, be attached to our Union. The expeditions of Fremont and the advances of our armies will bring to light much that is valuable. The Colorado is almost unexplored, though parts of it are known to be fertile. The country is immense, whatever may be its character.

Proportionate with the eastern projection of Florida, and almost in the same latitude with it, the narrow neck of land which constitutes the peninsula of California juts outward from the continent. To the northward and to the north-eastward, and, as yet, to an extent not clearly defined, are the remaining portions of California. Towards this section, two nations have of late exhibited a partiality, rather displeasing to each other and to the government which assumes the sovereignty,—Great Britain and the United States. Of the movements of the former, there has been some uncertainty. We know determinately the proceedings of our own government. In 1835, Mr. Forsyth offered the Mexican authorities five millions of dollars for the whole country of California. In 1842, laboring under an unfortunate misunderstanding, Capt. Jones, of the American navy, seized upon the post and fortifications of Monterey, and floated over them, for a while, the banner of the "stripes and stars." The matter was soon after satisfactorily explained. California, then, belongs to our subject. It is an important portion of Western America, and, in all probability, must blend its destinies with the regions which reach far northward beyond it. We shall be warranted in dwelling upon the country much longer than its merits would at first appear to deserve.†

THE VALLEY OF THE OREGON OF COLUMBIA RIVER.—This is the most remote region of America, being almost as distant from the city of Washington as the island of Great Britain. The question of boundary, so perilous, has been happily settled. South of the 49th° of latitude is ours, which includes the main and most valuable regions of the Oregon and its tributaries.

The Oregon river was discovered by Capt. Gray, of the American ship Columbia, in 1792. Its tributaries, &c. were first explored in 1805, by Messrs. Lewis & Clarke. For thirty or forty miles from its mouth, the Columbia forms a kind of bay from three to seven miles in breadth, and at the entrance there are dangerous shoals and

* Commercial Review, Vol. III., p. 496.

† We draw upon an elaborate paper prepared by us on the Oregon and California

breakers. It is navigable for 200 or 300 tons' burthen ships as far as the cascades, a few miles above the Willamet river. No part of the river above the Willamet is navigable continuously for more than 20 or 30 miles, and then only by the smaller class of vessels.

The superficial contents of Oregon is upwards of four hundred thousand square miles, being half as large as that of the United States. Mountain ranges break up the whole country into sections, of which there are three more remarkable than the rest, and presenting each their peculiar characteristics. Parallel with the coasts, and at a distance of one hundred miles, the first chain of mountains is discovered. These are sometimes designated as the Far West mountains, and at other times as the Presidents' range, from the fact of there being many peaks, each of which has been honored with the appellation of some former occupant of the White House. Further towards the east, and through the central regions of Oregon, lie the Blue mountains; and to the extreme eastward, the wild and magnificent Rocky mountains wall upward to heaven, and frown with fearful grandeur upon the valleys beneath. It is thus that the "valley countries" of Oregon are formed, by ranges of elevated lands, through which, at certain points, the Columbia river has succeeded in forcing its way to the ocean. The course of the Columbia to the mouth of the Walla Walla—a small stream entering it over two hundred miles from the ocean—is nearly due east and west. Here it divides into two great arms or branches, which, pursuing their opposite courses northward and southward, lose themselves at last among the lofty heights of the mountains. The lower branch has received the name of its discoverer, Clarke; the upper communicates with the Lewis, a river discovered by the same party. The Columbia, with its tributaries, waters more or less the three great districts or valleys of which we have been speaking. To these valleys it will be necessary to confine our attention.

The valleys of Oregon have been frequently described. The easternmost, or that between the Blue and the Rocky mountains, is rocky and barren, with slight exceptions of pasture lands. The middle valley, between the Blue and the Far West mountains, is more pregnant, and where the Walla Walla waters it, has developed many beauties of cultivation. The westernmost valley stretches to the Pacific on either side of the Columbia, from the straits of Fuca to the Umpqua river.

In this valley of fifty thousand square miles—susceptible, to a large extent, of profitable cultivation—a population equal to that of many of our States could be supported to advantage. Hills and valleys range themselves over its surface, and forests, dense forests, the most magnificent in the world, are spread abroad with a munificence of donation. Here, if anywhere, must be the seat of empire, population and wealth beyond the Rocky mountains,—here, while the inhospitable and barren regions around remain in their primitive desolation. The climate of this favored spot is genial, and the thermometer in summer ranges seldom higher than 80°. During that season, cool and refreshing breezes from the westward and north-westward constantly prevail. The winters are rainy, though mild and healthy. The season of rain sets in about October, and prevails till April; it is regular and constant, but seldom too violent to admit the usual occupations of the people.*

We have on other occasions given many particulars of the most interesting character in relation to this region, its population, trade, advances, &c. It is impossible to say how important it may ultimately become, and what may be its progress. Will it remain an integral part of us, or become independent? It has already its well organized government, schools, clergy, courts, laws, and press; and only a few days ago the first annual message of its governor was placed before us on the table. With China and the Sandwich islands its communication is easy but to the home government almost inaccessible. Should the railroad be accomplished, a thing we regard not so likely since a better southern route has been proposed, Oregon will grow with great rapidity; otherwise we think for generations the tide of population will prefer the El Dorado regions of Mexico.

Eastward and westward* of the Rocky mountains, nature has wonderfully contrasted her favors and exhibited her obvious partialities. On the one part, a region stretches out for the most in genial climes and soils, in rare agricultural plats, in hill and in plain country, and gentle undulations, with rivers and lakes, and coasts and havens, unsurpassed, if equated on the globe; with population, and wealth, and high destinies; with all that God can crown the wants of man. On the other part, uninhabited and uninhabitable, wildernesses abounding, deserts barren, broken and wild, arid heights and precipices, mountain ridges where the rains of heaven seldom descend—where the irrigating and refreshing streams seldom make their way, murmuring onward in sweet music to the ocean. In wilds such as these, the savage himself is seldom invited to roam, and the adventurous enterprise of the white man is frightened away.

But not all the country which stretches outward to the Pacific, from the bases of the Cordilleras, the Rocky or the Chippewan mountains, is such as this. Nature seldom creates a howling wilderness, but interposes somewhere her gardens and her lawns. She delights not alone in the features of the terrible—she luxuriates in her lines of beauty and her tints of loveliness. If she piles up her rocks and her mountains, Ossa upon Pelion, sky high, she slopes them down in undulating lawns and landscapes—she surrounds the desolation with flowery meads, and blesses her children with a smile as they emerge from the dark valleys and shadows of her frowns. To the westward of the headlands which supply the waters of the Mississippi and the Gulf of Mexico, there are regions of garden country hither and thither, where the bright colors of nature exhibit themselves, and the streams ripple along the banks of verdant valleys and fertile plains,—where the river leaves the stream, and over its falls and its cataracts rushes onward in impetuous career to the ocean,—where luxuriant forests and rank soils alternate amid navigable streams,—where sunshine and health have taken up their domain,—where the civilized man has marked the spot with his hamlet and his village and his town, and all their cheerful influences and delightful associations.

To the westward of the Rocky mountains, the fiat of Deity has not doomed all to a dreary and irrecoverable sterility. The oasis blooms in its midst. The curse which fell upon the earth for the transgressions of man, has not left it all here a hopeless region of wildness and desolation.

The densely peopled regions of the East are regarding with fonder eyes these remote borders, and indulging vague but stimulating dreams of prosperity and enterprise in their midst. Empire and affluence there, are the visions which flit before the fancies of those whose struggles have hitherto been for existence solely. Disappointed or not, these cherished anticipations will, in any case, largely influence the destinies of the country around which they centre. Speculation may be lost in the attempt to determine the political prospects and political relations of a region so remote. Nations may divide empire throughout its extent—but this how problematical! European maritime powers may gain a footing there, colonize, and govern the whole—a vagary even less substantial than

* This is the last extract from ourselves, if the reader will pardon us, for we cannot do better now.

the last. We may not undertake to solve the question ourselves. But we would say, if we did, that the progress of things hitherto in North America, indicates far different destinies. The principles of republicanism deeply sown and universally germinating here, point to a better order of things. The Atlantic and the Pacific States will unite under a common empire, and have a common destiny. A magnificent republic will stretch out its giant arms northward and southward, and eastward and westward, gathering in and nourishing and elevating the millions of human beings, whom Providence is rearing up throughout these wide domains.

THE VALLEY OF THE MISSISSIPPI.—There has lately appeared from the American press a learned and estimable work, with this title, prepared by Dr. J. W. Monette, of Mississippi.* Though admirably full in its detail of the *civil* and *political* history of this region, we regret that the *statistical* did not receive some portion of attention. We cannot learn the history of the West without this. It is also to be regretted that the work does not contain a good map of the Valley, to date, showing with precision its limitations and features. The first of these deficiencies, it is our intention, in some slight measure to remedy in this paper, and hereafter by many like publications; in not many months, perhaps, by a work in two volumes, similar to those of Dr. Monette, and supplementary, under the title of **THE PROGRESS, RESOURCES AND STATISTICS OF THE WESTERN VALLEYS**. For this we have already on hand most abundant materials, having been long engaged in its collection, and shall by correspondence, as well as by visiting personally almost every section intended to be included, collect everything that can be had. We hope also very soon to have executed a map of the Valley.

In the progress of our present paper, we shall follow, to some extent, the arrangement marked out by Dr. Monette, and be indebted to him for most of the facts of a historical nature. For all the rest we draw upon a variety of papers, manuscripts, volumes, &c., now before us, and prepared within the past few years.

And first let us clearly fix what is intended and included by the **MISSISSIPPI BASIN OR VALLEY**. Taking a position on the Gulf of Mexico, at the mouth of the Atchafalaya river in Louisiana, the perimeter or boundary-line will run north-westward to the 40th degree of latitude in the Rocky Mountains, from whence issues the sources of the Platte, Rio Grande, and Colorado; † from this point along the Rocky Mountains, to the sources of Marias river; around the northern sources of Missouri river to the head of Red river branch of the Assiniboine; around the sources of the Mississippi proper to the head of the

* *History of the Discovery and Settlement of the Valley of the Mississippi by the three great European Powers, Spain, France, and Great Britain, and the subsequent Occupation, Settlement, and Extension of Civil Government by the United States, until the year 1846, by J. W. Monette, M.D.* In 2 vols. New York. Harper & Brothers, 1847. This able work deserves many editions and extensive circulation in our country. It is the fruit of years of indefatigable research and toil. In its arrangement, it is admirable; in its matter and execution, nothing could be more faithful or reliable. We regret that to this period, there has appeared no elaborate review of it in any of our first class publications. We have heard Dr. Hawkes, of New Orleans, himself one of the ripest scholars and most learned students of history in our country, speak of the work in enthusiastic terms. The author, it is understood, has in preparation, at an early day for the press, an additional volume on the Geology of the Mississippi Valley, a subject he briefly treated in our Review for 1846.

† We have followed the able geographical writer, Darby, in these particulars. See his valuable letters to the Hon. John C. Calhoun.—*Commercial Review*, Vol. III., No. 4, p. 362.

Kankakee, branch of Illinois river; between the confluents of the Canadian sea and those of Ohio, to the extreme source of Alleghany river; along the dividing line of water source between the sources of streams flowing towards the Atlantic and into the Ohio; between the confluents of Mobile and Tennessee rivers; between the sources discharged into the Mississippi and those of Mobile and Pearl rivers, to the mouth of Mississippi river; from the mouth of the Mississippi, to the outlet of Atchafalaya.—Length of the whole outline 6100 miles. Any good map will show these points.

EXTENT OF THE MISSISSIPPI VALLEY.

	Square miles.
Valley of the Ohio,	200,000
“ “ Mississippi Proper,	180,000
“ “ Missouri,	500,000
“ “ Lower Mississippi,	330,000
Area,	1,210,000

Four great nations have exercised dominion within these vast limits, and their possession been a great source of anxiety, discussion, and hostility. The fiercest battles have resulted—the greatest jealousies, the keenest heart-burnings, and the wildest designs. The arts, the policy, the wisdom of one of these nations have at length prevailed, and won the mastery.

Let us begin with SPAIN. She was the earliest to penetrate the wilderness. It is not for us to speak here of the early and romantic adventurers—Ponce de Leon, Vasquez de Ayllon, Pamphilo de Narvaez, Hernando de Soto, beginning as early as 1512. The expedition of De Soto was brilliant and magnificent. It was as the gorgeous processions of the Crusaders, and as meaningless. Dr. Monette has given an admirable and full history of the unexampled wanderings, lasting through four years, and extending through Florida, Georgia, Alabama, Louisiana, Mississippi, and Arkansas. “It was poetry,” says Mr. Irving, “put into action; it was the knight-errantry of the old world carried into the depths of the American wilderness. The personal adventures, the feats of individual prowess, the picturesque description of steel-clad cavaliers with lance and helm, and prancing steed, glittering through the wildernesses of Florida, Georgia, Alabama, and the prairies of the far West, would seem to us mere fiction or romance, did they not come to us in the matter-of-fact narratives of those who were eye-witnesses, and who recorded minute memoranda.”*

The Spaniards called this country Florida, and claimed for it an extension north to the French settlement on the St. Lawrence. In 1565, the site of St. Augustine was fixed by Melendez, twenty years before any English settlement in the same region. Thus is St. Augustine the most ancient city in the United States.† We shall not speak of the encroachments of France and England on this domain, and of the several adjustments of boundaries. Suffice it that, in 1763, the Perdido River was the western limit of Florida, as it fell into British hands. France also ceded the portion of Louisiana east of

* Irving's Conquest of Florida; Monette's Valley of the Mississippi. See also a paper by Hon. C. Gazarre, in *Commercial Review*, Vol. III., p. 450. William's Florida.

the Mississippi river, except the island of New Orleans, so as to give the whole Mississippi, from its sources to the Gulf, as a British boundary. The western limit of Florida was made the Mississippi; it was divided into East and West Florida, with Pensacola and St. Augustine for capitals.

The products of Florida were soon considerable—sugar, rum, indigo. It passed again into the hands of Spain, and a dispute with the United States about boundaries was the immediate result. The 31° of latitude was settled by the treaty of 1795; and West Florida, extending to the Mississippi, was organized by Spain as the *District of Baton Rouge*. This district was seized by the United States, in 1810, in another dispute about territory, after the purchase of Louisiana from France. From Pearl River to the Perdido, West Florida was still possessed by Spain, but seized upon by General Jackson by order of Congress, in 1813. During our war with Great Britain, and from the apprehension and fact that it would be the theatre of British operations against us, the Americans also seized upon Fort Charlotte, at Mobile. We pass over the wars of General Jackson, in 1818 in Florida, with the Spaniards—over its cession to the United States by the treaty of 1819, and the wars with the Creek and Seminole Indians. The population, in 1840, was 54,477; and it was admitted into the Union in 1845.*

Although Florida and Alabama do not belong to the Valley of the Mississippi, yet, as their histories is allied with it, and as we have introduced them, a few statistics will not be misplaced.

Much of the soil of FLORIDA is pine barren, and poor; but there are extensive tracts of richest quality, adapted to sugar, rice, cotton, corn, tobacco and fruits. The forest growth is magnificent. The crop of 1840 consisted of 808,974 bushels corn, 264,000 bushels potatoes, 7,285 pounds wool, 124 pounds silk cocoons, 75,274 pounds tobacco, 481,000 pounds rice, 12,146,533 pounds cotton, 275,317 pounds sugar. The Indian wars greatly affected the progress of Florida, and cut off its products. The State is now reviving. *Tallahassee*, the capital, is a city of 2,500 inhabitants; *St. Augustine* has about the same; *St. Mary's*, *Tampa Bay*, *Appalachicola*, *Pensacola*, and *Key West* are either ports of entry or have a coasting trade. The last named has a mournful celebrity—more than fifty vessels being wrecked on its coast annually. It is filled with “wreckers,” and many great abuses have come to light at different times. Their life is a wild one.†

FOREIGN IMPORTS AND EXPORTS OF FLORIDA, 1833—1843.

	Imports.	Exports.		Imports.	Exports.
1833	\$95,386	\$64,805	1839	979,283	334,806
1834	135,798	228,825	1840	190,729	1,858,850
1835	98,173	61,710	1841	33,875	
1836	121,745	71,662	1842	176,980	33,384
1837	306,514	90,064	1843	158,631	760,335
1838	168,690	122,582			

* Dr. Monette is bitter about the exchange of Texas for Florida, and the delay of admitting these States into the Union. In all of this, as Southerners, we agree with him, but regret that the slightest show of partizanship should have had place in his valuable history.

† See Com. Review, Vol. III., p. 275.—Dr. Wurdeman, now residing in Florida, has

ALABAMA.—The cotton product is most abundant, and minerals inexhaustible, in this State. The census of 1840 gave fourteen small cotton factories, working in all 1500 spindles. This branch of enterprise is on the rapid increase there, as we know, having lately traveled over the State. There are but few railroads; but several in contemplation, among which may be named one from Montgomery to Pensacola; from Mobile to Pascagoula, to communicate with New Orleans; and from Mobile to the Ohio. A road from Montgomery to Mobile remains a great desideratum.*

Mobile, the chief city, we have previously described in the Review. Its progress of late has been retarded. The exports, foreign and coastwise, are, however, enormous (having reached nearly seventeen millions of dollars), for a city of 12 or 15,000 inhabitants.

EXPORTS AND IMPORTS—ALABAMA.

	Exports.	Imports.		Exports.	Imports.
1835	\$7,574,602	\$525,955	1841	\$10,981,271	\$530,819
1836	11,184,166	651,618	1842	9,965,675	363,871
1837	9,671,401	609,385	1843	11,157,460	360,655
1838	9,688,244	524,548	1844	9,907,654	442,819
1839	10,338,159	895,201	1845	10,538,228	473,491
1840	12,854,690	574,651			

Receipts of cotton at Mobile, 1841, 319,286 bales; 1842, 320,892; 1843, 482,631; 1844, 467,820; 1845, 517,550; 1846, 421,669; 1847, 320,000 bales (about).

Having opened with the Spanish history of the Mississippi Valley, we will proceed briefly to review the FRENCH, according to the arrangement of Dr. Monette.

We pass over the visits of Cartier and Champlain to the Northwest, in the 16th and 17th centuries, and the French Jesuits from Canada. Father Allouez, in 1669, learned of this great river of the West, which Marquette and Joliet soon visited. The career, discoveries, and unhappy fate of La Salle, are familiar to all. His was the first attempt to settle the regions of the lower Mississippi, in 1687. Ten years afterwards the French began the occupancy both from the North and South.

In 1712 a trade was opened between Quebec, Louisiana and Mobile Bay, in skins, furs, grain, flour, &c., and exports made thence to the West Indies and Europe. We quote from Dr. Monette:

As early as the year 1705, traders and hunters had penetrated the fertile regions of the Wabash; and from this region, at this early date, fifteen thousand hides and skins had been collected, and sent to Mobile for the European market. In the year 1716, the French population on the Wabash had become sufficiently numerous to constitute an important settlement, which kept up a lucrative trade with Mobile by means of traders and voyageurs. Nor was the route from Lake Erie unknown. For many years this route had been familiar to the *voyageurs* and *courriers du bois*, who ascended the Miami of the Lake by the St. Mary's branch, and, after a portage of three leagues, passed the summit level, and floated

us that the Records at St. Augustine might be of interest to the Louisiana Historical Society.

* Commercial Review, Vol. III., No. 2; Vol. III., No. 3, No. 6, pp. 469, 559; Vol. II., p. 418.—The subject of cotton manufactures is attracting great attention in Alabama. There is a factory at Tallica, Tallapoosa Co., of 1000 spindles; one at Scottsville, Bibb Co., the Tuscaloosa Factory, which has existed many years; one near Huntsville, the Bell Factory, 2000 spindles; one in Perry Co. A factory at Tuscaloosa, now in construction, will employ 3000 spindles. There is one also, we think, at Florence. The factory at Prattsville will be noticed in another part of this number.

down a shallow branch of the Wabash. In the year 1718 this route had been used for two years; for it was established in the year 1716.*

In 1746, six hundred barrels of flour were received at New Orleans from the Wabash. The French authorities began the exploration of the Ohio river in 1749. The jealousies of Britain, however, were soon excited, and long and bloody wars were destined to result.

[A. D. 1753.] The French court was well aware of the importance of the great Western valley. It was now known that if there were no rich mines of gold and silver north of the Ohio and east of the Mississippi, there was a more inexhaustible mine in the fertility of the soil and the mildness of the climate. A spirit of agricultural industry had been infused into the Western settlements; in a few years more, Upper Louisiana, which embraced the Ohio region, might become the store-house for France and Western Europe.†

A treaty of peace, in 1763, gave to England Canada and New France, being all the territory east of the Mississippi from its source to the Bayou Ibberville. A secret treaty at the same time ceded to Spain all the remaining French territories in the Mississippi Valley.

Dr. Monette gives a beautiful and affecting picture of the early life and manners of the French settlers in the North-west, almost primitive. He thus speaks of their trades and pursuits :

The traders kept a heterogeneous stock of goods in their largest room, where their assortment was fully displayed to the gaze of the purchasers. The young men of enterprise, wishing to see the world, sought occupation and gratification as *voyageurs* or boatmen, as agents for the traders, or as hunters, to visit the remote tribes upon the furthest sources of the Mississippi and the Missouri, in company with the trading expeditions which annually set out from the Illinois country.

Mechanic trades, as a means of livelihood, were almost unknown; the great business of all was agriculture, and the care of their herds and flocks, their cattle, their horses, their sheep, and their swine, and each man was his own mechanic.‡

The Spanish dominion succeeded quietly over these people. Not so readily, however, the submission to the change of policy when brought under the American government.

The history of the French power in Louisiana, until the cession of that territory in 1763 to Spain, is written with great elaboration by Dr. Monette, and constitutes an interesting division of his work. It consists of six chapters under the following captions: The first colonization of Louisiana until the close of Crozat's Monopoly; Louisiana under the "Western Company" until the failure of Law's Mississippi Scheme; Louisiana to the Natchez Massacre; Louisiana after the Natchez Massacre; Under the Royal Governors until the close of the Chickasaw War; After the Chickasaw War. We shall not be able to follow these divisions, nor is it necessary, as in previous numbers of the Review everything interesting in the history of Louisiana has been given under different heads. We however make a few extracts, showing the progress of the State.

First, under the grant to Crozat :

"M. Crozat caused settlements or trading-posts to be made in the most remote parts of the province, while explorations were extended into the most distant known tribes. Under St. Denys, a settlement and trading-post was established on Red River, on the site of the present town of Natchitoches, in the present State of Louisiana. St. Denys also explored Red river much further, and advanced on a tour of observation as far as the Rio Bravo del Norte, the present western limit of Texas. About the same time, a small settlement and trading-post was estab-

* Monette, Val. Miss., Vol. I., p. 162.

† Ibid., p. 169.

‡ Ibid., p. 192.

lished on the Yazoo, and on Sicily island, and high up the Washita, on the site of the present town of Monroe, afterward known as the 'post of Washita.' M. Charleville, one of M. Crozat's traders, penetrated the Shawanese tribes, then known as the 'Chouanoes,' upon the Cumberland river. His store was situated upon a mound near the present site of Nashville, on the west side of the Cumberland river, near French-lick creek, and about seventy yards from each stream.*

Second, about the year 1742 :

As early as the year 1742, the defense of the country being in the hands of the king's officers and troops, the Indian tribes generally observed a respectful neutrality, or a friendly and commercial attitude. Free from danger and apprehension of Indian violence, agriculture continued to flourish, and commerce, freed from the shackles of monopolies, began rapidly to extend its influence, and to multiply its objects under the stimulus of individual enterprise. Capitalists embarked with alacrity into agriculture and commerce. The trade between the northern and southern portions of Louisiana had greatly augmented, as well as that from New Orleans to France and foreign countries. Regular cargoes of flour, bacon, pork, hides, leather, tallow, bear's oil, and lumber, were annually transported down the Mississippi in keel-boats and barges to New Orleans and Mobile, whence they were shipped to France and the West Indies. In their return voyages, these boats and barges from New Orleans and Mobile, supplied the Illinois and Wabash countries with rice, indigo, tobacco, sugar, cotton, and European fabrics. The two extremes of Louisiana produced and supplied each other alternately with the necessaries and comforts of life required by each respectively. The mutual exchange of commodities kept up a constant and active communication from one end of the province to the other. Boats, barges, and pirogues were daily plying from one point to another, freighted with the rude products of a new and growing country. The great highways of commerce were the deep and solitary channels of the Mississippi and its hundreds of tributaries.†

Third, introduction of cotton into Louisiana :

About this time a cotton-gin, invented by M. Dubreuil, which facilitated the operation of separating the cotton fibre from the seed, created an epoch in the cultivation of cotton in Louisiana, and it began to enter more largely into the products of the plantation.

Fourth, introduction of sugar :

Sugar-cane had not yet been introduced as a staple product of Louisiana. The first attempt to cultivate the sugar-cane in the province was made by the Jesuits, in the year 1751. This year they had introduced a quantity of cane from St. Domingo, together with several negroes who were acquainted with the process of manufacturing sugar from the juice. They opened a small plantation on the banks of the Mississippi, just above the old city of New Orleans, and within the limits of the second municipality. The following year attempts were made by others to cultivate the plant and to manufacture it into sugar. Satisfied with the success of the first attempts, many others soon afterward commenced its culture, and within a few years most of the plantations above and below the city, for many miles, had introduced the culture of cane on a small scale, by way of experiment. Several years elapsed, when the Jesuits and some others, having succeeded even above their expectations, M. Dubreuil, a man of capital and enterprise, was induced, in 1756, to open a sugar plantation on a large scale. He erected the first sugar-mill in Louisiana upon his plantation, which occupied the lands now covered by the lower part of the city of New Orleans, and known as the "Suburb of St. Marigny," below the third municipality. The enterprise of M. Dubreuil having rewarded him with an abundant crop and a ready sale, others were anxious to embark in the same enterprise with large capital.

Thus, before the close of the year 1760, sugar-cane had been fairly introduced as one of the staple products of Louisiana; yet the art of making sugar was in its infancy. The sugar which was made was consumed wholly in the province, and was of very inferior quality, for want of a knowledge of the granulating process. Before the year 1765, M. Dubreuil, M. Destrechan, and others, had succeeded in making sugar which answered all the purposes of home consumption.

Still, the planters had not learned the art of giving it a fine, dry, granulated appearance, such as was produced in the West Indies. The whole product of the province had been, heretofore, barely sufficient for domestic consumption; but in the year 1765 one ship-load of sugar was exported to France; yet so imperfect had been the granulating process, that one-half of it escaped from the casks as leakage before the vessel reached her destination. This was the first export of sugar from Louisiana, and the commencement of her trade in her most valuable staple, which has since continued to increase up to the present time, until the annual crop of sugar made in Louisiana varied, between the years 1840 and 1845, from 110,000 to 115,000 hogsheads, besides as many barrels of molasses.*

In taking leave of the French History of Louisiana, we cannot but experience some emotion. What were the anxieties that had been felt for its advances, what the tender regards and fond imaginings of *the future*. La Salle would have extended its influences to India, making the Mississippi a highway to the Northern seas. The memory of John Law and his notable scheme blends itself with this romantic and remarkable era. How much had France at heart the fortunes of this colony, and what resources had she cheerfully expended upon it! But the uncertainties and fluctuations of colonial empire have not now to be written.

From a manuscript translation of M. Gayarré's History of Louisiana,† a *Southern* work, which the North American Review sneers at as usual, we introduce a passage on the fortunes of the Acadians, who were thrown upon the banks of the Mississippi by the hard policy of the English government.

“The principal part of the Acadians, however, who came to Louisiana, had not voluntarily expatriated themselves, but had been expelled from their native soil by England. When Louis XIV. ceded Acadia to Great Britain, he had stipulated that the subjects whom he abandoned should preserve their property, on condition of their swearing fealty and allegiance to Queen Anne. The Acadians, however, refused to bind themselves by this oath, except on the condition of never being compelled to bear arms against France. The English authorities complained of this refusal, but the government at the time thought proper to postpone any extreme measures. Nevertheless, English policy was not asleep; but soon arousing from its apparent drowsiness, the whole world was dismayed by the cold cruelty of its decrees. Acadia is a sterile country, offering so few attractions to emigration that it is probable long years would have elapsed before the introduction of an English population sufficiently powerful to serve

* Monette, *Miss. Valley*, Vol. I., pp. 297, 298.

† The history of the French dominion in Louisiana has lately been written in that language by the Hon. Charles Gayarré, of New Orleans, and examined in our Review, Vols. I. and III. The third volume, containing Spanish history, will be delayed until the results of a search at Madrid for documents can be known, the State of Louisiana having appropriated a large sum for the purpose. We are happy to announce that Mrs. Stewart, the amiable and accomplished lady of Commodore Stewart, has been engaged for some time in the translation of M. Gayarré's history. It will be illustrated with notes, and a succinct view of the late progress in Louisiana. Mrs. Stewart spends her winters in New Orleans, and has had the advantages of conference with the ablest minds. Such passages of her translation as we have seen—and there is a chapter before us now in manuscript—are admirably executed. The rest we have not examined. Mrs. S. is now in New York, and the work will, she informs us, appear in the fall. We shall do full justice to its merits. At present we give a short extract from her manuscript, and commend the work in advance as an exceedingly valuable addition to our historical libraries, with all the freshness and interest of a romance.

as a check to the French; and besides, the Acadians had given so loud an utterance to their enmity, that it would have become necessary to restrain them by placing posts and garrisons among them, at a cost to the government every year of a great pecuniary sacrifice. It was a difficult position for Great Britain, principally on account of the contiguity of Acadia to the Canadas, the conquest of which she was at that time attempting, and who found zealous defenders in the Acadians, their neighbors. But as Great Britain never yet recoiled before the employment of any means to reach her object, her decision was soon made, and orders were given to seize upon the Acadians without distinction of age or sex, and disperse them at different intervals of distance on the shores of the other Anglo-American colonies. Regardless of the misery and pain to be inflicted, she imagined that these wretched exiles would intermingle with the numerous population amongst which they were thrown. This decree was executed with the most unrelenting rigor; and a large part of the Acadian population was at different epochs, and in small bands, driven on board the English vessels. In quitting the homes of their native soil, the Acadians were not permitted to carry anything away with them but the sentiment of their misfortunes and the eternal hatred to which their cruel oppressors were so justly entitled. Driven like vile herds, these Acadian families, amounting to seven thousand souls, were heaped together on board the vessels of their persecutors, and when they turned a last look on their country, to ejaculate an eternal adieu, the flames which consumed their villages and the English bayonets which bordered their shores met their despairing gaze! Thus did ancient Messenia behold her children fly before the decree of exile issued by the ferocious Lacedemonians! Thus was renewed in the new world those scenes of atrocity and tragic grief of which Greece had been the witness, and which the pen of the author of *Anacharsis* has represented under such terrific coloring. The expressions of *Barthelemy* are but too applicable to the fate of these modern *Messenians*!

“A whole nation driven from their homes, wandering amongst nations astounded at their misfortunes—youth, enfeebled by grief, bearing upon its shoulders the authors of its being—women strewed along the ground, with the infants which they press to their breasts swooning and expiring from debility! Here are tears and groans—the deepest expressions of despair, and there a speechless anguish and a frightful silence. If to the most cruel of the Spartans was confided the task of delineating this picture of horrors, some remains of pity would cause the pencil to drop from his hands! The English colonists received with humanity those unfortunate exiles, who had been thrown on their territory with as much indifference as if they were the refuse of the human race. They blushed at the crime committed by England, and resolved to repair it by every means in their power. Pennsylvania, New Jersey, and the southern provinces granted assistance to these victims of English policy. It was hard indeed for these wounded hearts to thus accept the bread of pity at the hands of the brothers of their persecutors, speaking the same language. The Acadians had heard that on one point of North

America that spotless banner still waved, which they loved with such heroic devotion. The hopes of beholding it, at once reanimated their courage."

The period which intervenes between the year 1757, or the English occupation of the upper Ohio region, and the close of the American war, is the subject of the third book of Dr. Monette's work, which is entitled *Great Britain in the Valley of the Mississippi*. It is a period of the liveliest interest, from the steady approaches of the Anglo-Saxon across the mountains—from the romantic exploits and fierce struggles of the pioneers, and their hardy enterprises. We cannot even casually refer to these.

In 1762, northern Virginians began to advance from the Potomac over the mountains, to the head waters of the Monongahela; from James River the adventurers attained the tributaries of the Kenhawa; from Roanoke and North Carolina, they passed along the base of the Blue Mountains. The next year lands were patented by Virginia, on the Ohio, far beyond the Appalachian Mountains. In 1769, was formed, says Dr. Monette, the first Anglo-American Mississippi Company, of which, among other stockholders, were to be George Washington, Richard Henry Lee, Arthur Lee, &c. This company failed in its object. In 1770, Ebenezer Zane selected the site of Wheeling.

The year 1770 is distinguished for the first advances into Kentucky, and the romantic career of Daniel Boone, its immortal "backwoodsman." The fame of Kentucky was upon all lips, and the Cumberland mountains—the Rubicon at last passed, an epoch as great as that of Cæsar's. With five families besides his own, the march of Daniel Boone from North Carolina began. He was the great pioneer—the patriarch of the wilds, whose monument should stand erect in the valley, as his name in the song of Byron. With one Michael Stoner, this fearless man made the passage from Clinch river to the Falls of the Ohio, 400 miles, through untrod wildernesses, conducting a party of surveyors. He returned to join the western army, and not long after conducted his family to the banks of the Kentucky river, founding *Boonsborough*, a name retained to this day. Thus, says Dr. Monette, Daniel Boone's wife and two daughters may be considered the first white women who made their residence in Kentucky. The population of the town rapidly increased.

The war of the revolution extended beyond the mountains. We shall not chronicle these deeds of sanguinary strife. The peace which resulted delivered Florida from the power of Britain, and her dominion ceased upon the Mississippi.

Thus, in the changes of dynasties and the fretful course of empire and of arms, the Spaniard returns to his haunts of old, and the banners of Spain are floating again on the great river by whose banks her adventurous De Soto had sickened in despair, and died. For forty-one years this banner waved.

We pass over the remonstrances of the French population against a transfer of their allegiance, the repinings, the conventions, the career of O'Reilly, and the blood of the martyrs to French liberty. The site of St. Louis was selected in 1769, by M. La Clede. The population of Louisiana, according to Judge Martin, was as follows:

PARISHES AND SETTLEMENTS, EXCLUSIVE OF NEW ORLEANS.*

1. Below the city on the river	570	Brought forward, - - -	7678
2. Bayou St. John and Gentilly	307	9. Attakapas	409
3. Tchoupitoulas	4192	10. Avoyelles	314
4. St. Charles	639	11. Natchitoches	811
5. St. Jean Baptiste	544	12. Rapides	47
6. La Fourche	267	13. Washita	119
7. Iberville	370	14. Arkansas	88
8. Point Coupee	783	15. St. Louis, or Upper Louisiana	891
Carried forward, - - -	7678		10318

New Orleans contained 468 houses, and 3199 souls, 1803 of which only being free whites. In 1777, Dr. Monette thus refers to the city :

The same year witnessed the first regular commercial intercourse between the ports of the United States and the city of New Orleans. The pioneer in this commerce was Oliver Pollock, a citizen of Baltimore, who had been residing in the city of New Orleans since the close of O'Reilly's administration. During the year 1777 he received the appointment of United States' agent in New Orleans for the purchase and supply of military stores : ammunition, and munitions of war, for the use of the American posts upon the Ohio frontier, as well as subsequently for those in the Illinois country. Being an active and energetic man of business, and an enterprising merchant of New Orleans, he soon received the favorable attention of Governor Galvez, which greatly facilitated his commercial operations in behalf of the federal government, and enabled him to render important services to the cause of the American Revolution.†

The trade of the Mississippi becoming now of some consequence from the settlements throughout its valley, the Spanish authorities deemed the occasion fitting for enlarging their coffers by the imposition of tribute duties. These the western people resisted, and threatened to defeat by a resort to arms.

In 1788, the city of New Orleans was devastated by a fierce conflagration, which brought ruin and dismay, but eventually resulted in moderating the commercial restrictions which had been imposed on its trade. We extract from Dr. Monette an account of this fire, and the subsequent improvements of the city.

On the 21st of March, about three o'clock in the afternoon, the chapel of a Spaniard in Chartres-street took fire, and, by a strong wind, it soon spread over the city, until nine hundred houses were consumed, besides an immense amount of property of every description. This was the severest calamity which had ever befallen the city, and threw the whole province into want and embarrassment. Provisions of all kinds became scarce, and great distress prevailed in the city. To prevent actual suffering and famine, the government was obliged to take measures for supplying the necessities of the people. A contract was opened for the supply of a large quantity of flour from the Ohio region, upon which large advances of money were made; and, as an additional inducement to traders and boatmen, the privilege of introducing other articles was granted to those who brought cargoes of flour.

The embarrassment and privations occasioned by this unforeseen calamity in the city, admonished the governor of the necessity of relaxing all the commercial restrictions upon the river trade, and of releasing those individuals who had been imprisoned for former violations of the revenue laws, and to restore the property previously seized and confiscated.‡

A new impulse was given to the trade of the western people with the Spanish provinces generally, through the port of New Orleans. The surplus products of the settlements on the Monongahela, the Ohio, the Kentucky, and Cumberland rivers, consisted of flour, pork, beef, whisky, apples, cider, lumber, horses, cattle,

and many other agricultural and manufactured products, which met with a ready sale in New Orleans, as well as other points upon the river. An active trade in breadstuffs had likewise been opened with the city of Philadelphia, by sea, and a state of general good feeling existed between the western people and the Spanish authorities in Louisiana.

Enterprise was awakened in the West, and capital freely invested in rearing those products most in demand in Louisiana and the Spanish provinces throughout the Continent, as well as in the West India islands; and men of enterprise and capital embarked their means in the navigation of the river and in the extension of western commerce.

For two years this state of amicable trade continued, and from all these settlements emigrants and adventurers continued to descend, upon every spring flood, in company with the regular trading boats from the Ohio. Many of them, well pleased with the climate and agricultural facilities of the country, remained and entered into the cultivation of tobacco, cotton, and indigo, then the most valuable staples of Louisiana. Others, who had contemplated a permanent residence in the Florida districts, averse to the tenets and rites of the Catholic Church, to which all were required to adhere, yielding to their prejudices, returned to the United States, to enjoy freedom of opinion in their religious sentiments and the church rituals.*

The Baron Carondelet conducted great improvements in New Orleans. He constructed the canal, which took his name. "Thus, in the autumn of 1795 was there a navigable canal route opened from the city, by way of the lake, to the sea; and the spring of 1796 witnessed ships at anchor in the rear of the city."

Of the stormy period of western history at the close of the eighteenth century, we have before written, and do not think it well to delay the reader now. There were wars, and rumors of wars, and excitement on all hands. Negotiations on the part of the anxious Americans were successful; and Spain, forced into the arms of France, left her favorite province and her dominion to pass into the hands of the United States. The ceremonies of delivery from Spain to France, and from France to our government, were imposing.

After the final transfer of New Orleans, and before the arrival of the American troops, a company of young Americans was raised in the city for its protection. They were commanded by Daniel Clarke and mustered in Canal street. They were joined by many Creoles, and ultimately numbered about 300. Dr. Monette makes the following interesting note, which we cannot forbear transcribing. We have often heard our friend, Col. Maunsel White, refer with enthusiasm to these times.

This volunteer battalion was formed at the instance of the following gentlemen, then resident in New Orleans, viz.: George Martin, since parish judge of St. Landry, Colonel Reuben Kemper, George King, George Newman, Benjamin Morgan, Daniel Clarke, American Consul, Dr. William Flood, since a distinguished physician of New Orleans, Maunsel White, and Woodson Wren, present postmaster in Natchez. But few of the original members of the battalion are living at this time, which is now forty-one years since the delivery of Louisiana to the United States commissioners. There were two of the survivors still living in Adams county, Mississippi, in February, 1845. These are Woodson Wren, and George Newman. Martin states this battalion to have been composed of only one hundred and twenty Americans; but Dr. Wren and George Newman, Esq., both members of the battalion, sustain the authority of the text.†

The condition of Louisiana at this period is thus represented. Population, 1803, according to the report of the consul at New Orleans, 49,500, including west Florida, Mobile, and Pensacola. New Orleans

* Monette. Val. Miss. Vol. I., pp. 479, 480.

† Ibid., p. 561.

contained 8,000, Mobile 800; the proportion is now sustained, Pensacola 404; upper Louisiana 6,028. The commerce of New Orleans extended to all the west, and to the eastern states, and Europe. Its river trade employed five hundred flat boats. The cotton crop of 1802, was 20,000 bales of 300 lbs.; sugar, 5,000 hhd. ; indigo, 3,000 lbs. A dozen stills were producing taffia, from molasses; a sugar refinery in the city produced 20,000 lbs. of loaf sugar. Exports of 1802, 50,000 bbls. of flour; 3,000 bbls. of salt beef and pork; 2,000 hhd. of tobacco; 34,000 bales of cotton; 4,000 hhd. of sugar; and 800 casks of molasses.*

The second volume of Dr. Monette's history is entitled, the UNITED STATES IN THE VALLEY OF THE MISSISSIPPI. For all practical purposes, it is the most valuable of the two, and constitutes the only history of this period, taken in a comprehensive whole. The space occupied is between 1775 and 1846; an introductory chapter being appended, upon the manners and customs of the frontier population. It is illustrated with a map of Texas in 1836; a later one would have been much more desirable, though this is sufficient for general purposes. The Rio Grande appears upon it as the boundary as far as 29° 30' N. latitude, where the line strikes N. E. toward the Guadalupe mountains, along which it is thence drawn. Texas being considered by Dr. Monette, justly, as originally included in Louisiana, accounts for the appearance of the map. The first volume, we ought to have observed, contains two other maps, showing the limits of Louisiana in 1740; of Florida, and of the British American colonies and the country around the lakes, at a still more remote period.

We cannot take up the American portion of the history of the Mississippi valley, without feeling that we have approached an epoch of great events and of signal triumphs of our republican policy. Hemmed in by a chain of mountains and by the sea, it was conceived at the period of the revolution, by some of the best thinkers, that the Atlantic republics were too numerous and scattered, even then, to present other than discordant elements, and require a less powerful government than centralism itself. Could they have supposed that the barriers of the mountains were to be overleaped, even while their doubts were fresh upon their lips; that the allied or confederated republics would spring up, far as the remote west could trace them; that they would scale the Rocky mountains, and intermingle with the Chinese on the Pacific shores, or claim the Sandwich Islanders for their neighbors; that the shores of the South seas and the Gulf of California would receive their councils from the cabinets at Washington; and Mexico herself present a feeble barrier to their interminable progress. The allied republics, doubling, and even increasing three-fold their numbers, and yet "one, like the wave!" A single state in the valley of the Mississippi, unexplored at the period of the revolution, with a population equal nearly to that of the then thirteen colonies combined; a single city more populous than all the Atlantic cities together, at the same epoch; and these results in the memory and experience of men who have lived through them all. *Such is the Valley of the Mississippi!*

However, for reflections of this sort we shall have abundant space

hereafter, when, having completed the Civil history, we take up the Statistical, of wealth, population, progress and prospects.

The domestic life of the western pioneers combined, it may be imagined, simplicity and wildness. The hunting-shirt, the leggins, and breech-cloth and moccasins, borrowed from the Indians, were a common attire. The dwellings were log pens in squares, with a door, and often the luxury of a window. A plastering of clay and the usual smoky chimney and dirt floor, and we were about to say, squalling children; but of this history has no mention. But then the mechanic and the merchant comes, and how soon these log-cabin comforts are gone forever!

As soon as the mechanic and merchant appeared, sashes with two or four lights of glass might be seen set into gaps cut through the side logs. Contemporaneously, old barrels began to constitute the tops of chimneys, and joists and plank, sawed by hand, took the place of puncheons.

At first log cabins were built in villages or clusters, and surrounded with stockades formed by logs set upright in the ground, and made bullet-proof for mutual protection against Indian surprise and massacre.

The inside appearance of a frontier habitation was also unique, and adapted to the circumstances of the times. Bureaus, side-boards, and armors were unknown, and so were their uses. The whole furniture of a room consisted of one home-made bedstead, and one trundle bedstead under it for children, both well furnished with bear skins and buffalo robes instead of blankets; a few split-bottomed chairs, and a few three-legged stools, a small movable bench or table, supported by two pairs of cross-legs, for the family meals; a shelf and water-bucket near the door. The naked wood and clay walls, instead of the ornamental paper and tapestry of the cities, were embellished with the whole wealth of the family wardrobe. The frocks, dresses, and bed-gowns of the women, the hunting-shirts, pantaloons, and arms of the men, all were suspended around the walls from wooden hooks and pegs, and served as a good index to the industry and neatness of the mistress of the house. The cooking utensils and table furniture consisted of a few iron pots, "pewter plates and dishes," spoons, knives and forks, which had been transported from the east with their salt and iron; besides these, a few wooden bowls, or "trenchers," "noggins and gourds," completed the list of cooking and eating utensils.*

The chase fed and clothed these hardy woodmen, and they had always in the rude larder good stock of such wild flesh and fowl as their progeny might contemplate with watery mouth, and sigh for at this day in vain. The pheasant and the opossum have verily degenerated since then. Who would eat a domesticated or *civilized* rabbit, smoke-dried and rank with the greasy odors of steam and machinery? And then the "journey cake;" or, not to be pedantic about the matter, familiar "*Johnny cake*." How benignant has been our household deities in preserving to us this relic of olden time! It might have been lost in tradition, or corrupted like the arts of Egypt or of Greece. But no: it smokes yet by the cheerful embers—not in your dashing marble columned mansion, to be sure, but in your good old-fashioned chimneys of the Carolinas and Virginia. Who but would write the praise of "*Johnny cake*," and teach the excellent proportions which go to make it up? Refine not too much your meal, good Mrs. Cook, and see that the salt be sprinkled with a sparing hand. Let not the heat too intensely reach it by the hearth. Now softly turned that there be not too much crisp, and that either side have a like show of brownness. Pass under the knife to the board, and while yet the smoke passes, ply softly the new-churned butter. But

* Monette's Valley of the Mississippi, Vol. II. p. 6.

who can teach the *rationale* of "Johnny cake?" Your books are worthless. It can be made nowhere than on these old hearths we commemorate. Send your special agents to teach the starving Irish the virtues of corn meal, as many as you please; they do not know these virtues themselves. Old Nanny, who watched our boyhood—heaven praise her—at our fondly remembered homestead, can give a better lesson on the merits and *modus preparandi* of "Johnny cake" than them all. Their blunders would shock her—these vaunting commissioners of frying-pans and dough-boards! But we are growing epicurean: and no wonder, as we write in the far East, where Indian meal is worked up into such villainous compounds. Dr. Monette celebrates the "hog and hommony" too, of those days of yore—the great staples with which the Western granaries and "porkeries" are feeding the world.* We adopt the "hommony," but waugh the "hog!" Our voice is *still* about the "hog"—your gross "*bacon!*" We will have none of him. "But a young and tender suckling, his voice as yet not broken, but something between a childish treble and a grumble—the mild forerunner or *prælude* of a grunt."

"See him in the dish (every one will recognize Charles Lamb), his second cradle, how meek he lieth!—wouldst thou have had this innocent grow up to the grossness and indocility which too often accompany maturer swinehood? Ten to one he would have proved a glutton, a sloven, an obstinate, disagreeable animal—wallowing in all manner of filthy conversation—from these sins he is happily snatched away—

Ere sin could blight or sorrow fade
Death came with timely care—

his memory is odoriferous—no clown curseth, while his stomach half rejecteth, the rank bacon—no coal-heaver bolteth him in reeking sausages—he hath a fair sepulchre in the grateful stomach of the judicious epicure—and for such a tomb might be content to die."

But this people began to aspire to other luxuries than hog and hommony and peltry clothes, well as these might be in their way. A caravan set out annually for the east of the mountains, with furs, &c., for barter. The caravan consisted of several men with horses and pack-saddles and pouches of shelled corn; and thus they passed to Baltimore or to Frederick. Here salt, nails, iron, pewter plates and dishes were the equivalent for hides, ginseng, snake root and bears-grease. A barrel of salt was worth a cow and a calf in the West.

And then the administration of justice. My Lord Chief-Justice of the King's Bench could not have presided with more dignity than him of Oyer, Terminer, *instantly*, memory, under his forest canopy—Lynch!

Night was the season for their official acts. Chief-Justice "Birch" established his tribunal under a forest canopy; before him the culprit was arraigned, and with form and ceremony tried, and, as a matter of course, convicted. Sentence was pronounced, and without delay the penalty was inflicted without stint or mercy. Tied securely to a tree, he was made to feel the rod, dealt by many sturdy hands, until justice was satisfied. If perchance he were an old offender,

* There has lately appeared two works from the press, entitled "Indian Meal," and "The Pig." The reader may have some use for them. They have not yet come to our hands.

or had claims to the title of a "British Tory," his wounds were dressed, not with oil and wine, but with "tar and feathers." As the culprit retired from this ordeal, he was informed by Judge Lynch that the operation would be repeated in a few days unless he withdrew from the jurisdiction of the court. If there were confederates in crime, this warning served for all.

This tribunal was resorted to only in extreme cases; and although liable to occasional abuse, it was a great protection to honest people against the most abandoned intruders, who defied the usual forms of law.*

The life of the boatmen, that hardy and unique class which soon formed itself on the western rivers, and exists to the present day, to a certain extent, is graphically delineated by Dr. Monette. We make an extract :

Steam had not exerted its magic influence on the western waters, and the rich cargoes which ascended the Mississippi in keel-boats and barges were propelled by human labor for nearly two thousand miles, slowly advancing against the strong current of these rivers. The boatmen, with their bodies naked to the waist, spent the long and tedious days traversing the "running board," and pushing with their whole force against their strong setting-poles, firmly fixed against the shoulder. Thus, with their heads suspended nearly to the track on the running-board, they propelled their freighted barge up the long and tedious route of the river. After a hard day's toil, at night they took their "fillee," or ration of whiskey, swallowed their homely supper of meat half burned and bread half baked, and retiring to sleep, they stretched themselves upon the deck, without covering, under the open canopy of heaven, or probably enveloped in a blanket, until the steersman's horn called them to their morning "fillee" and their toil.

Hard and fatiguing was the life of a boatman; yet it was rare that any of them ever changed his vocation. There was a charm in the excesses, in the frolics, and in the fightings which they anticipated at the end of the voyage, which cheered them on. Of weariness none would complain; but rising from his hard bed by the first dawn of day, and reanimated by his morning draught, he was prepared to hear and obey the wonted order, "Stand to your poles and set off!" The boatmen were masters of the winding-horn and the fiddle, and as the boat moved off from her moorings, some, to cheer their labors, or to "scare off the devil and secure good luck," would wind the animating blast of the horn, which, mingling with the sweet music of the fiddle, and reverberating along the sounding shores, greeted the solitary dwellers on the banks with news from New Orleans.

Their athletic labors gave strength incredible to their muscles, which they were vain to exhibit, and fist-fighting was their pastime. He who could boast that he had never been whipped was bound to fight whoever disputed his manhood. Keel-boatmen and barge-men looked upon raft-men and flat-boatmen as their natural enemies, and the meeting was the prelude to a "battle-royal." They were great sticklers for "fair play," and whoever was worsted in battle must abide the issue without assistance.

Their arrival in port was a general jubilee, where hundreds often met together for diversion and frolic. Their assemblages were often riotous and lawless to extremes, when the civil authorities were defied for days together. Had their numbers increased with the population of the West, they would have endangered the peace of the country; but the first steamboat that ascended the Ohio sounded their death-knell, and they have been buried in the tide, never more to rise.†

The progenitors of the western population were a race moulded in the strongest casts of nature; of athletic forms and massive stature, of powers of endurance and action, they were more than matches for the savages themselves, in their own pursuits of war or the chase. Yet were they happy and surrounded by the joys of homes and families, and their youths and maidens tripped the dance with moccasins and brogans with a zest and grace which would not have shamed our fashionable life.

Famous in the memory of the West are Daniel Boone, Simon Kenton, Robert Patterson, and George Rogers Clark. They belong

7. One gallon of oats	-	-	-	-	-	-	-	\$4 00
8. Half a pint of whisky, with sugar	-	-	-	-	-	-	-	8 00
9. One quart of strong beer	-	-	-	-	-	-	-	4 00

The currency, Continental money, continued to diminish in value until 1781, when the charge for dinner was fixed by the court at twenty dollars; breakfast and supper at fifteen dollars.*

At the close of the American war, Kentucky and Ohio exhibited great prosperity. "About the first of June, emigrants began to arrive by hundreds, and spread like a flood of fertilizing water over the whole country. Merchandise from Philadelphia and Baltimore, transported in wagons across the mountains, by way of Ligonier and Cumberland, to Pittsburgh and Brownsville, and thence boated down the Ohio, in keel-boats and arks, to Limestone and the falls, began to arrive in the new settlements. The same summer Kentucky was greeted with the first dry-goods store, opened in Louisville by Daniel Broadhead, from Brownsville, on the Monongahela. The second store was not opened until the following year, when Colonel James Wilkinson, of Maryland, also from Brownsville, opened the first dry-goods store in Lexington.

"The population of all the settlements, up to the year 1783, exceeded twelve thousand souls. This number was greatly augmented by the daily arrivals during the succeeding summer; and the spring of 1784 found the entire number increased to more than twenty, and soon, thirty thousand souls."*

In the few last years of the eighteenth century, the whole western country was agitated and convulsed by party influences, many of which were hostile to the United States Government. Kentucky, in particular, experienced such perplexing difficulties by her remoteness from the seat of government of Virginia, from which it occupied three months for the orders of her governors to reach her, and by the obstructions to her navigation and commerce imposed by the Spanish authorities at New Orleans, she appeared ripe for some outbreak of a serious character. Informed of this dissatisfaction, the British and Spanish governments opened immediately their intrigues for the purpose of bringing all the West under the jurisdiction of Louisiana or of Canada. The French, too, were striving to throw down a force upon lower Louisiana, sufficient for its conquest and restoration to their arms. Never was there a more perilous period in the history of any country—more trying to patriotism—more dangerous to social order. Five distinct western parties are recorded at this period.

"1. In favor of forming a separate and independent Republic, under no special obligation of union, except such as might be most advantageous.

"2. In favor of entering into commercial arrangements with Spain, and of annexing Kentucky to Louisiana, with all the advantages offered.

"3. Opposed to any Spanish connection, and in favor of forcing the free navigation of the Mississippi by the arms of the United States, with the invasion of Louisiana and West Florida.

"4. In favor of soliciting France to claim a retrocession of Louisiana, and to extend her protection to Kentucky.

"5. The strongest party, however, was in favor of a separation from Virginia, and admission into the Federal Union as a free and independent State, leaving it to the general government to regulate the Mississippi question with Spain."

Pittsburgh, the great coal and iron city of the Valley, was simple Fort Pitt in 1763, an insignificant settlement. In 1766 the "Gazette" was published in its midst, the *first newspaper west of the mountains*. The town began a rapid growth and opened its commerce with New Orleans. It became a store-house for the western posts, and a depot for the western army. Western Pennsylvania had become an important region. Her superabundant corn descended the Mississippi in whisky. Horses, cattle and stock also descended, castings, cutlery for agriculture, &c. Everything went on encouragingly until an excise duty upon whisky, manufactured principally in the West, aroused the keenest sensibilities and hostilities of this region.

In 1787 Congress established a territorial government, including all possessions of the United States *north-west of the Ohio river*. The first court of justice in this region was convened in 1788. The ceremonies of opening this Court, are thus given by Dr. Mottet, and are amusing enough :

A procession was formed on the point near the residence of the citizens; the sheriff, with a drawn sword, in advance, followed by the citizens, officers of the garrison at Fort Harmar, the members of the bar, the judges of the Supreme Court, the governor and a clergyman, with the judges of the newly organized Court of Common Pleas, in the order they are named.

Arriving at the hall of the Campus Martius, the whole procession was counter-marched into it, and the judges Putnam and Tupper took their seats on the bench; the audience was seated, and, after the divine benediction was invoked by the Rev. Dr. Cutler, the high sheriff, Ebenezer Sproat, advanced to the door, and proclaimed aloud, "Oyes! Oyes! a court is opened for the administration of even-handed justice to the poor and the rich, to the guilty and the innocent, without respect of persons; none to be punished without a trial by their peers, and in pursuance of the laws and evidence in the case."

In 1790 the name of Cincinnati began first to be heard. It became "a centre of fashion and refinement;" frame houses began to appear, and in the course of the summer forty log cabins were added to the town. The site of the town remained a forest, partly leveled, with stumps and logs still evident.

Tennessee, which has become so important as to be second only in the value of its products to any State in the Union, had but a slender beginning. Even before the Revolution a few straggling parties from North Carolina had reached its limits; and it was not before 1778 that the jurisdiction of that State was extended regularly over it. The fame of this western region of the old North State, invited emigration from the East in flocks. "There is a charm in the virgin earth and the primeval forests of the West, which perfectly bewilders the mind of the emigrant from old and dense settlements." Nashville, so called in honor of the distinguished General Nash, was laid out in 1784. It was soon created into a State, and increased with extraordinary rapidity. "Tennessee has not inaptly been called the mother of States. From her bosom has issued more colonies for the peopling of the great Valley of the Mississippi than from any one.

State in the American Union. Her emigrant citizens have formed a very important portion of the population of Alabama, of the northern half of Mississippi, and of Florida. They have also formed the principal portion of the early population of the States of Missouri, Arkansas, and Texas."

The twelfth chapter of the second volume of the "Valley of the Mississippi," traces the progress of Ohio from its infancy to its present proud stature and importance. We mark the gradual progress of population up the valleys of the Scioto and the Miami on the western reserve, on the Maumee and the Wabash, the Illinois country, and the origin and growth of Cincinnati, Cleveland, Chillicothe, Detroit, Marietta, etc. The picture which is drawn of the famous seat of Blannerhasset, will have a lively interest with all of our readers.

Among the emigrants to the North-western Territory during this year was Herman Blannerhasset, an accomplished gentleman and a man of fortune, from Ireland. Driven from his native country by political difficulties, he sought an asylum on the bosom of the beautiful Ohio. He purchased from Colonel Devoll, of Virginia, the island in that river, one mile below the mouth of the Little Kenhawa, and soon afterward commenced his improvements. As this has become classic ground in Ohio, it is worthy of a more detailed notice. Before the year 1801 had closed, Mr. Blannerhasset had erected a splendid mansion on the upper end of the island, and had surrounded it with fine pleasure-grounds, gardens, and orchards of choice fruit. His study was furnished with a large and well-selected library, an extensive philosophical apparatus, and everything which taste and learning could desire. A fine scholar, and well versed in languages, he spent much of his time in study, when not engaged in social intercourse with his intelligent neighbors from Belpre and Marietta. So tenacious was his memory, that he is said to have been able to repeat some of the books of Homer by rote in the original Greek. His wife was accomplished in all the acquirements of female elegance and learning: music, painting, drawing, and dancing were her amusements, and the social converse of cultivated minds and festive amusements of the young beguiled the happy hours. Surrounded with everything that could make existence desirable and happy, and cheered by a rising and brilliant family, his seat was almost a terrestrial paradise, as described by Wirt, until the acquaintance of Aaron Burr blasted every hope and ruined every source of enjoyment. This former paradise is now faintly commemorated in the solitary and desolate spot remaining of "Blannerhasset's Island." The mansion was consumed by fire in 1810, and since then every vestige of improvement has disappeared.*

The history of the territories of Mississippi and Orleans, the regions of Texas, and the North-west territory, extending to the Mississippi, present the concluding incidents of our sketch of the Mississippi Valley. We shall necessarily be brief upon these.

The Mississippi Territory.—This included the country surrendered by the Spanish authorities lying north of 31° latitude, and was organized in 1798. The Chattahoochy was its eastern, and the Mississippi its western limit. The first code of laws was adopted in 1801 and 1802. The first newspaper, established in 1802 by Colonel Andrew Marschalk, was the "Natchez Gazette," and was continued by him for forty years, under different names.

"Among the incidents in the early history of the Mississippi Territory, was the violent death of the notorious robber, Mason. This fearless bandit had become the terror of the routes from New Orleans and Natchez through the Indian nations. After the organization of the territorial government, and the opening of roads through the wil-

derness to Tennessee, the return of traders, supercargoes and boatmen, to the northern settlements with the proceeds of their voyage, was on foot and on horseback, in parties for mutual protection, through the Indian nations; and often rich treasures of specie were packed on mules and horses over these long and toilsome journeys. Nor was it a matter of surprise, in a dreary wilderness, that bandits should infest such a route. It was in the year 1802, when all travel and intercourse from New Orleans and the Mississippi Territory was necessarily by way of this solitary trace, or by the slow-ascending barge and keel, that Mason made his appearance in the Mississippi Territory.

“Long accustomed to robbery and murder upon the Lower Ohio, during the Spanish dominion on the Mississippi, and pressed by the rapid approach of the American population, he deserted the ‘Cave in the Rock,’ on the Ohio, and began to infest the great Natchez Trace, where the rich proceeds of the river trade were the tempting prize, and where he soon became the terror of every peaceful traveler, through the wilderness. Associated with him were his two sons, and a few other desperate miscreants; and the name of Mason and his band was known and dreaded from the morasses of the southern frontier to the silent shades of the Tennessee river. The outrages of Mason became more frequent and sanguinary. One day found him marauding on the banks of the Pearl, against the life and fortune of the trader; and before pursuit was organized, the hunter, attracted by the descending sweep of the solitary vulture, learned the story of another robbery and murder on the remote shores of the Mississippi. Their depredations became at last so frequent and daring, that the people of the territory were driven to adopt measures for their apprehension. But such was the knowledge of the wilderness possessed by the wily bandit, and such his untiring vigilance and activity, that for a time he baffled every effort for his capture.

“Treachery, at last, however, effected what stratagem, enterprise, and courage had in vain attempted. A citizen of great respectability, passing with his sons through the wilderness, was plundered by the bandits. Their lives were, however, spared, and they returned to the settlement. Public feeling was now excited, and the governor of the territory found it necessary to act. Governor Claiborne accordingly offered a liberal reward for the robber, Mason, dead or alive! The proclamation was widely distributed, and a copy of it reached Mason himself, who indulged in much merriment on the occasion. Two of his band, however, tempted by the large reward, concerted a plan by which they might obtain it. An opportunity soon occurred; and while Mason, in company with the two conspirators, was counting out some ill-gotten plunder, a tomahawk was buried in his brain. His head was severed from his body and borne in triumph to Washington, then the seat of the territorial government.

“The head of Mason was recognized by many, and identified by all who read the proclamation, as the head entirely corresponded with the description given of certain scars and peculiar marks. Some delay, however, occurred in paying over the reward, owing to the slender state of the treasury. Meantime, a great assemblage from all the adjacent country had taken place, to view the grim and ghastly head of the robber chief. They were not less inspired with curiosity

to see and converse with the individual whose prowess had delivered the country from so great a scourge. Among those spectators were the two young men, who, unfortunately for these traitors, recognized them as companions of Mason in the robbery of their father.

"It is unnecessary to say that treachery met its just reward, and that justice was also satisfied. The reward was not only withheld, but the robbers were imprisoned, and, on the full evidence of their guilt, condemned and executed at Greenville, Jefferson county.

"The band of Mason, being thus deprived of their leader and two of his most efficient men, dispersed, and fled the country. Thus terminated the terrors which had infested the route through the Indian nations, known to travelers as the 'Natchez and Nashville Trace.'"

In 1803, when the surrender of Louisiana to the United States was expected, men of all grades, professions and pursuits, flocked to Mississippi, with the intention of descending, at the first opportunity, to New Orleans. Natchez became a place of much importance. It was a large village, consisting chiefly of small, wooden buildings, of one story, distributed over an irregular, undulating surface, with but little regard to system or cleanliness.†

The following extract from the deposition of William Eaton, is all that we can give in relation to the designs of the celebrated Aaron Burr, so famous in the memory of the West.

He now laid open his project of revolutionizing the western country, separating it from the Union, establishing a monarchy there, of which he was to be the sovereign, New Orleans to be his capital; organizing a force on the waters of the Mississippi, and extending conquest to Mexico. I suggested a number of impediments to his scheme, such as the republican habits of the citizens of that country, and their affection toward our present administration of government; the want of funds; the resistance he would meet from the regular army of the United States on those frontiers; and the opposition of Miranda in case he should succeed to republicanize the Mexicans.

Mr. Burr talked of the establishment of an independent government west of the Alleghany, as a matter of inherent constitutional right of the people; a change which would eventually take place, and for the operation of which the present crisis was peculiarly favorable. There was, said he, no energy in the government to be dreaded, and the divisions of political opinions throughout the Union, was a circumstance of which we should profit. There were very many enterprising men among us who aspired to something beyond the dull pursuits of civil life, and who would volunteer in this enterprise; and the vast territory belonging to the United States, which, offered to adventurers, and the mines of Mexico, would bring strength to his standard from all quarters. I listened to the exposition of Colonel Burr's views with seeming acquiescence. Every interview convinced me more and more that he had organized a deep-laid plot of treason in the West, in the accomplishment of which he felt fully confident; till at length I discovered that his ambition was not bounded by the waters of the Mississippi and Mexico, but that he meditated overthrowing the present government of our country. He said if he could gain over the marine corps, and secure the naval commanders, Truxton, Preble, Decatur, and others, *he would turn Congress neck and heels out of doors; assassinate the President; seize on the treasury and the navy, and declare himself the protector of an energetic government.* The honorable trust of corrupting the marine corps, and of sounding Commodore Preble and Captain Decatur, Colonel Burr proposed confiding to me. Shocked at this proposition, I dropped the mask, and exclaimed against his views. He talked of the degraded

* Monette's Val. Miss., vol. II., pp. 531, 532, 533.

† Dr. Monette notices a curious currency in Mississippi at this time. "Cotton Receipts," negotiable by law, as bills of exchange or money. They represented so much cotton deposited in public bins for cleaning, as the farmers were generally too poor to have private bins of their own.

situation of our country, and the necessity of a *blow* by which its energy and its dignity should be restored; said if that blow could be struck here at this time, he was confident of the support of the best blood of America. I told Colonel Burr he deceived himself in presuming that he, or any other man, could excite a party in this country who would countenance him in such a plot of desperation, murder, and treason. He replied that he, perhaps, knew better the dispositions of the influential citizens of this country than I did. I told him one solitary word would destroy him. He asked, what word? I answered, *Usurper!* He smiled at my hesitation, and quoted some great examples in his favor.*

The Mississippi territory in 1803, did not number in population more than 40,000, and that was distributed in three distinct sections—the Natchez district, the Tombigbee settlement, including the annexed portions of Florida, near the Mobile Bay; the third was north of the great bend of Tennessee river. An Indian conspiracy about this period threatened the extermination of the second, and a fearful conflict was the result. Consternation was spread throughout Alabama. The slaughter at Fort Mims presents unparalleled horrors. We have seen a manuscript drawn up by Colonel Pickett, of Alabama, who designs publishing a history of his native State, which delineates to the life all the terrors of the scene. The details were furnished him by one of the few survivors of that day, now living in Alabama.

The act of 1807 constituted the *Alabama Territory*. In 1816 its population was 30,000; and two years afterward it had increased to 70,000; and in 1819 the State of Alabama was admitted into the Union, and soon rose to her present dignity and importance.

The *Territory of Orleans* was established in 1804, soon after the purchase, and included such portions of Louisiana as were southward of the Mississippi river, &c. It soon became the theatre of events of the most imposing kind—the schemes of Burr, the counter-movements of Wilkinson and Claiborne; arrests, crimination and recrimination, and martial law. “During the month of January, great excitement prevailed in New Orleans. The troops were kept continually marching through the streets of the city. The volunteer battalion of New Orleans was upon constant duty, and the city and its environs presented the appearance of a besieged town, with numerous gun-boats and armed vessels in port and stationed at different points upon the river and adjacent lakes.”

Dr. Monette pronounces the highest encomiums upon the administration of Governor Claiborne during this crisis. He was firm, sleepless, and energetic. Wilkinson, too, is ably exonerated from the charges of treason by connivance in the plans of Burr, or of cherishing similar plans of his own. General Wilkinson he represents as a man of towering ambition, but there is no evidence that it was not to serve his country. He did receive favors from the Spanish governor, commercially, and money from the same source, as a security for the safety of Louisiana in Spanish hands. An invasion of Mexico was with him, too, a favorite project, long meditated. With a view to it he had even brought about the appointment of Lieutenant Pike, who explored the routes and collected information. But in none of this does it seem that he was other than a shrewd speculator upon events, willing in everything to serve his country, and his country first. This is his defense by Dr. Monette, who also vindicates him

from censure in the proceedings in arresting Burr's accomplices. The only objection we can have to this portion of the history is, the bitterness with which a respectable portion of the citizens who were opposed to what they thought an unconstitutional and tyrannical procedure, are denounced. The temper of history should never be ruffled.

We pass over the seizure of the Spanish fort at Baton Rouge, by the Americans, under Captains Depasseau and Thomas, the latter of whom is still living at a ripe old age in that town, and all the brilliant movements of our soldiers and citizens under General Jackson during the war of 1812, as events sufficiently understood by our readers, and sufficiently discussed by us on previous occasions. This portion of the work will be read with lively regard. We introduce a passage showing the advances of the city.

Near the close of the year 1815, the entire population of Louisiana did not exceed ninety thousand souls, of whom one half were blacks. The greater portion of this number were concentrated in the city of New Orleans, and upon the river coast, for thirty miles below, and seventy miles above the city. The inhabitants of these river settlements were chiefly Creole French, with a small intermixture of Anglo-Americans. On the Lafourche, for fifty miles below its efflux, and upon the Teche, for fifty miles below Opelousas, was also a dense French population. Several bayous west of the Atchafalaya were likewise occupied by the same people, and others in the delta of Red river, and extending as high as Natchitoches, but chiefly below Alexandria. A few scattering French habitations had been formed on Red river, many miles above Natchitoches, and also upon the Washita as high as the post of Washita, and above the present town of Monroe. In all these settlements west of the Mississippi, but few Anglo-Americans had arrived before the purchase of Louisiana. As late as the admission of that State into the Federal Union, the French were the most predominant class in the vicinity of Alexandria, as well as on the river coast below Baton Rouge.

It was only after the year 1815, when Louisiana was relieved from the dangers of foreign invasion, and began to reap the advantages of steam navigation on the river, that the State and New Orleans began to take the proud rank they now enjoy in population, commerce, agriculture, and arts. Enterprising emigrants and capitalists began to develop the unbounded resources of this great agricultural State. Since that time the Anglo-Americans have advanced into every portion of the State, and intermixed, by settlement and marriage, with the French, until at last the English language has nearly superseded the French, even in the concentrated settlements near New Orleans, as well as in one half of the old French part of the city.

In the Florida parishes the number of French was comparatively small at the cession of the province of Louisiana, and the proportion had greatly diminished in 1810, when the Spanish authority was rejected by the inhabitants, previous to their annexation to the State of Louisiana. Since that period, the increase of population has been effected chiefly by emigrants from the State of Mississippi and from the western States generally; and the French language is almost unknown as a colloquial dialect.*

The *North-western Territory*, besides the State of *Ohio*, which was carved out of it, contained the germs of three other States; the county of *Knox* giving rise to *Indiana*, *St. Clair* to *Illinois*, *Wayne* to *Michigan*. *Indiana* was made a Territory in 1800, *Illinois* in 1809, *Michigan* in 1807. The three territories together at the opening of the war did not exceed forty thousand inhabitants.

About the year 1832 the tide of emigration began to set toward *Michigan Territory*. Steamboat navigation had opened a new commerce upon the lakes, and had connected the eastern lakes and their population with the *Illinois* and *Upper Mississippi*. This immense lake navigation encircled the peninsula of *Michigan*. It became an object of exploration. Its unrivaled advantages

* *Monette's Val. Miss.*, Vol. II., p. 515.

for navigation, its immense tracts of the most fertile arable lands, adapted to the cultivation of all the northern grains and grasses, attracted the attention of western emigrants. The tide soon began to set strong into Michigan. Its fine level and rolling plains, its deep and enduring soil, and its immense advantages for trade and commerce had become known and duly appreciated. The hundreds of canoes, pirogues, and barges, with their half-civilized *courriers du bois*, which had annually visited Detroit for more than a century, had given way to large and splendid steamboats, which daily traversed the lakes from Buffalo to Chicago, from the east end of Lake Erie to the south-western extremity of Lake Michigan. Nearly a hundred sail of sloops and schooners were now traversing every part of these inland seas. Under these circumstances, how should Michigan remain a savage wilderness? The New England States began to send forth their numerous colonies, and the wilderness to smile.*

The Huron District, Michigan, west of the Lake, was constituted the *Wisconsin Territory* in 1836. The remote settlements in this territory west of the Mississippi, were attached to it under the title, *District of Iowa*; two years afterwards, from the rapid increase of population, converted into a Territory. Thus were laid the foundations of these important States, which have, as it were, by magic, sprung up in the North-west, challenging all history for a precedent.

We cannot but close this picture in the language of our author:

At the close of the year 1845, such had been the general increase of inhabitants in the states and territories comprised within the limits of the original "North-western Territory," as organized in 1787, that the regions* which, fifty years before, had been occupied as the abodes and hunting-grounds of a few naked, roving bands of savages, were now inhabited by three millions and a half of the most active, enterprising, and commercial people in the world, producing and enjoying all the luxuries and comforts of civilized life, with the improvements, refinements, and intelligence of the oldest nations in the world.

By the State census for the year 1845, the entire population of the states and territories is as follows:

1. State of Ohio,	1,732,832 souls.	4. State of Michigan,	304,285 souls.
2. " Indiana,	854,321 "	5. Territory of Wisconsin,	150,000 "
3. " Illinois,	705,011 "		

The above states, in 1845, had forty members of Congress, and Wisconsin one delegate.†

The Territory of Louisiana included the upper portion of the purchase from France, and became, in 1812, *Missouri Territory*, extending from 33° to 41° north. The southern portion, or that below the line 36° 30', was, in 1819, made the *Arkansas Territory*.

The storm which attended the admission of *Missouri* into the Union in 1820, from the fanaticism of parties and the famous "compromise," is familiar to all. The rapid subsequent progress of the Commonwealth we shall directly see.

"While the State of Tennessee was pouring her redundant population into the northern half of Mississippi, she did not withhold her numerous emigrants from the Arkansas Territory. Wealthy planters and capitalists from Mississippi, Louisiana, Tennessee, and even from Georgia, had their faces turned to the fertile and salubrious regions upon Red river, in the south-west corner of the Arkansas Territory. Surveys and explorations were progressing rapidly in this region, and numbers were advancing to the occupancy of choice locations for their future homes. Nor was it long before the Federal Government caused the surveyed lands free from Indian claim to be exposed to public sale, when not reserved to the actual occupants.

"Nor was the western portion of the Arkansas Territory the limit of American progress in that quarter. Hundreds of adventurous families from the Western and Southern States, attracted by the liberal offer of lands in Texas, advanced to swell the colonies established by American proprietors within grants profusely made by the Republic of Mexico. Settlers for these remote colonies advanced from the western frontier of the United States, descended the Mississippi to the mouth of Red river, and thence, ascending that stream to Shreevesport, proceeded by a direct route into the eastern portion of Texas, and sought their favorite colony."*

The concluding pages of Dr. Monette's able history are devoted to the history of the settlement, independence, and government of Texas,† and her admission as a State into the Union. We shall not go over this ground, considering it not embraced in our plan at present, but on another occasion will do full justice to this interesting and important section of our Union.

Thus have we sketched the outlines of events which have transpired in the Valley of the Mississippi, since first the dash of its great waters was heard by civilized man. Nation after nation have exercised their empire in its midst, and sought to control its destinies. But what was this great valley when it passed into the exclusive control of the American Union, after nearly two centuries of monarchical rule; and what has it become in scarcely more than a generation since? It seems almost impossible to realize that fact and not fiction supply the material upon which we draw for the details of this history. The world has heard with amazement that a mighty empire has grown up in the interior region of North America, rivaling in arts, and progress, and resources, the most advanced nations of Europe; and bidding fair to rival even India itself in the denseness of its population. It will be our province now to furnish the tabular statements which evince something of this, though we regret as yet they are meagre; and by combining and comparing them, and deducing the obvious conclusions, we shall be enabled to present a more satisfactory and valuable view of the great West than could be furnished in any other way. The length to which this paper may be extended, and the great labor it may cost, should not be allowed to influence us in this matter.

Let us open with the State of LOUISIANA. This State is in length 270 miles, and in breadth 210, comprising an area of 45,350 square miles, a very limited portion of which may be considered in cultivation. Millions of acres of the best soil are unreclaimed in the best locations. The products of the State are chiefly cotton, rice, and sugar; but such is the extension of the last, that it must in the result monopolize nearly the whole planting capital. Rice might become an important staple, such is the abundance of lands suited to its culture, and rival in amount the products of Carolina and Georgia. Great facilities for inland navigation exist in the State, and some of the finest rivers. Internal improvements have hitherto been limited;

* Monette's Val. Miss., Vol. II., pp. 555, 556.

† Since the annexation, the population of Texas has been rapidly increasing from the Southern and Western States. The cultivation of sugar and cotton has progressed in similar ratio; and we may expect in a very few years to find it one of the most considerable States in the South-west.

the longest railroad is scarcely thirty miles at this time, and extends towards the Mexican Gulf. An extensive line was begun to Nashville, five hundred and sixty-four miles, but has been entirely abandoned. The other roads are from four to six miles, except the Feliciana, which is twenty miles, but doing very little. There are several short canals. The capital in manufactures in 1840 was \$6,430,690.

"There were in the State, 99,888 horses and mules; 381,248 neat cattle; 98,072 sheep; 323,220 swine; poultry to the value of \$283,559. There were produced sixty bushels of wheat; 107,353 bushels of oats; 1,812 bushels of rye; 5,952,912 bushels of Indian corn; 834,341 bushels of potatoes; 24,051 tons of hay; 49,283 lbs. of wool; 1,012 lbs. of wax; 119,824 lbs. of tobacco; 3,604,534 lbs. of rice; 152,555,368 lbs. of cotton; 119,947,720 lbs. of sugar. The products of the dairy were valued at 153,069 dollars; of the orchard, at 11,769 dollars; of lumber, at 66,106 dollars. There were made 2,884 gallons of wine; and 2,233 barrels of tar, pitch, &c."

FOREIGN TRADE AND COMMERCE OF LOUISIANA FROM 1805 TO 1845.

YEARS.	EXPORTS.			IMPORTS.
	Dome. tic	Foreign.	Total.	
1805	\$ 2,318 483	\$ 1,033 082	\$ 3,371 545	.....
1806	2,357,141	1,530,182	3,887,323	.....
1807	3,161,381	1,159,171	4,330,556	.....
1808	4,537,711	723,590	1,261,101	.....
1809	344,303	197,621	541,924	.....
1810	1,753,971	131,978	1,890,952	.....
1811	2,501,843	118,203	2,650,050	.....
1812	1,025,602	34,809	1,060,471	.....
1813	1,013,667	31,485	1,045,153	.....
1814	383,709	34,82	387,191	.....
1815	5,055,854	46,752	5,102,610	.....
1816	5,251,833	351,115	5,602,948	.....
1817	8,241,254	743,558	9,024,812	.....
1818	12,176,910	747,399	12,924,309	.....
1819	8,950,931	817,833	9,768,763	.....
1820	7,242,415	353,742	7,596,157	.....
1821	6,907,599	361,573	7,272,172	3,379,717
1822	7,303,461	676,184	7,978,645	3,817,238
1823	6,769,410	1,009,662	7,779,072	4,283,125
1824	6,442,946	1,485,874	7,928,820	4,539,769
1825	10,965,331	1,617,690	12,582,924	4,290,034
1826	9,048,506	1,235,874	10,284,380	4,167,521
1827	10,603,832	1,126,165	11,728,997	4,531,645
1828	10,163,342	1,784,058	11,947,400	6,217,881
1829	10,898,183	1,487,877	12,386,060	6,857,209
1830	13,042,710	2,445,952	15,488,692	7,699,083
1831	12,845,531	3,926,458	16,761,989	9,766,693
1832	14,105,118	2,425,812	16,530,930	8,871,653
1833	16,133,457	2,807,916	18,941,373	9,590,505
1834	23,759,607	2,797,917	26,557,524	13,781,809
1835	31,225,015	5,005,808	36,270,823	17,519,814
1836	32,226,565	4,953,263	37,179,828	15,117,649
1837	31,546,275	3,792,422	35,338,697	14,020,012
1838	30,077,534	1,424,714	31,502,248	9,496,808
1839	30,995,936	2,189,231	33,184,167	12,861,943
1840	32,698,069	1,238,877	34,136,936	10,677,190
1841	32,865,618	1,521,865	34,387,483	10,256,360
1842	27,427,422	976,727	28,404,149	8,033,591
1843	.....	.....	26,653,927	8,170,015
1844	.....	.....	30,498,307	7,826,789
1845	.....	.....	27,157,495	9,354,397

COTTON EXPORTS OF NEW ORLEANS FROM 1819 TO 1846.

SHIPMENT OF COTTON FROM NEW ORLEANS FOR SIXTEEN YEARS.

YEARS.	London.	Liverpool.	Cork, &c.	Glasgow.	France.	Nor. Europe.	Nor. States.	TOTAL.
	bales.	bales.	bales.	bales.	bales.	bales.	bales.	bales.
1819								99,013
1820		56,085	3318	4,340	28,440	3,874	16,904	112,961
1821	863	46,836	3466	1,854	38,558	9,101	35,789	136,770
1822	611	55,354		3,914	33,557	10,164	51,430	156,030
1823	144	88,180	5508	6,853	25,789	5,363	39,594	171,431
1824	399	55,977	614	5,253	35,059	615	46,507	145,423
1825	25	92,301	1978	7,609	32,834	773	68,795	204,306
1826		103,643	5103	3,162	63,760	4,631	66,487	251,791
1827		178,434	1270	12,743	60,101	9,279	67,028	328,855
1828	70	133,196	2720	6,532	70,130	6,822	85,835	305,335
1829	1550	119,033	1443	8,485	81,939	14,289	41,050	267,792
1830		179,623	943	15,413	91,129	4,828	56,082	352,223
1831	66	203,129	3,403	15,393	60,913	5,307	135,360	423,971
1832		192,838	2548	6,227	77,122	11,939	63,934	354,678
1833	336	216,479	656	8,019	82,304	5,028	92,667	405,539
1834	244	271,368	2499	13,956	100,225	11,132	61,825	461,549

EXPORTS OF COTTON FROM NEW ORLEANS FOR TEN YEARS.

WHETHER EXPORTED.	1845-6.	1844-5.	1843-4.	1842-3.	1841-2.	1840-1.	1839-40.	1838-9.	1837-8.	1836-7.
Liverpool,	52965	52947	48817	62481	29099	59010	45943	23773	46886	22043
London,	159	2025	51	61	28	304	113	6	13	41
Glasgow & Greenock, ..	1782	26213	21265	35221	15574	20415	26603	7390	16147	17977
Cowes, Falmouth, &c.	8134	17975	14893	15638	10749	9139	13660	2439	48	2969
Cork Belfast, &c.	14181	.....	2182	2928	1107	4389	4549	2139	.....	1198
Havre,	14815	11286	10793	15958	16103	57277	206311	110978	110364	113168
Bordeaux,	2315	2314	1418	2811	2347	2807	6841	1348	4407	6100
Marseilles,	6968	7857	7416	9923	10922	9153	21929	6371	7129	9418
Nantz, Cotte & Rouen, ..	4251	1854	3127	8374	2230	1914	5809	2076	6385	5165
Amsterdam,	2019	131	1390	2523	584	.....	3523	49	692	292
Rotterdam and Ghent, ..	53	2233	512	2172	2907	.....	709	.....	.....	.....
Bremen,	3119	2411	2776	12303	6489	1700	1054	4	636	123
Antwerp, &c.	743	7196	8199	17684	5209	5284	7377	.....	1596	2782
Hamburg,	3525	9123	3156	13664	5678	9769	6646	310	3149	2536
Gothenburg,	247	1630	40	114	286	2783	2964	947	313	533
Spain and Gibraltar, ..	1675	821	.....	401	78	561	1508	1245	5423	3490
Havana, Mexico, &c.	2940	6203	33151	21177	12818	9002	30594	3380	2650	1967
Genoa, Trieste, &c.	52807	37201	19704	17662	10610	10801	28659	4920	5910	7675
China, .....	.....	5533	.....	4203	.....	.....	.....	.....	.....	.....
Other foreign ports, ..	4059	2287	1308	1342	174	90	1044	112	802	283
New-York,	7475	52890	28214	49036	31215	55830	46854	62175	30234	22922
Boston,	11168	75367	79400	73491	54082	8128	34042	49487	30953	29244
Providence, R. I.,	5743	74	211	674	1910	3132	1411	3701	1607	1177
Philadelphia,	1298	6744	6919	3253	2946	5721	6195	6371	8224	6463
Baltimore,	5507	364	4686	3278	1703	4832	3495	3459	6341	3768
Portsmouth,	2769	165	4126	.....	265	9025	8711	548	4919	8044
Other maritime ports, ..	910	2432	3269	3000	2716	581	6429	7171	5026	3781
Western States,	800	6000	2500	5000	1722	.....	.....	.....	.....	.....
TOTAL BALES, ..	1054457	244616	185575	1068870	749267	821288	89320	33779	736313	589590

From the purchase of Louisiana until 1817, no satisfactory accounts were published of the sugar yield of Louisiana; in 1818 the crop was 25,000 hogsheads. In 1822 steam-power began to be used in its manufacture.

SUGAR CROPS OF LOUISIANA FOR TWENTY-FIVE YEARS.

years.	hhd.	years.	hhd.	years.	hhd.	years.	hhd.	years.	hhd.
1822-3	30,000	1827-8	87,065	1831-2	75,000	1835-6	86,000	1839-40	119,847
1823-4	82,000	1828-9	49,285	1832-3	70,000	1836-7	75,000	1840-1	120,000
1824-5	30,000	1829-30	73,000	1833-4	75,000	1837-8	no return	1841-2	135,000
1825-6	45,000	1830-1	75,000	1834-5	110,000	1838-9	do.	1842-3	146,316
1826-7	71,000								146,316

*estimated.

ARTICLES INTO NEW ORLEANS FROM THE INTERIOR
From the 1st September to the 31st August

ARTICLE	1846-5.	1844-5.	1843-4.	1842-3.	1841-2.	1840-1.
Apples, bbls.	26,775	26,515	43,969	67,803	36,443	27,244
Bacon, as No. in but	25,213	12,892	19,563	16,568	13,505	11,231
Butter, lbs.	12,092	8,358	19,070	13,588	9,240	6,111
Beeswax, cks.	492,700	350,000	1,203,821	1,453,798	1,288,109	2,593,037
Beef, bbls.	96,601	111,324	100,216	89,721	60,307	70,976
Beef, dried, lbs.	56,678	67,600	83,684	80,932	63,307	65,613
Butter, lbs.	16,585	7,006	7,619	8,878	10,863	14,281
Butter, cks.	44,172	30,319	18,831	18,530	11,791	14,074
Butter, lbs.	1,494	395	500	894	284	306
Butter, cks.	1,200	1,464	1,911	985	843	806
Butter, lbs.	4,920	510	510	2,677	3,300	16,069
Butter, cks.	63,231	32,674	49,363	17,549	17,455	33,282
Butter, lbs.	95,200	58,200	55,610	51,400	60,812	70,100
Butter, cks.	1,031	1,915	5,445	5,135	3,122	2,587
Butter, lbs.	765,315	688,244	627,769	824,045	583,328	677,343
Butter, cks.	14,276	19,533	13,234	14,280	8,967	5,763
Butter, lbs.	222,677	198,246	169,334	191,410	118,629	118,122
Butter, cks.	34,876	23,103	21,835	30,511	16,734	11,149
Butter, lbs.	6,356	12,123	47,596	10,637	4,565	5,881
Butter, cks.	5,884	12,830	12,916	3,381	2,831	731
Butter, lbs.	4,249	25,159	18,170	15,328	5,101	4,481
Butter, cks.	3,905	7,917	3,769	5,415	6,023	2,214
Butter, lbs.	358,573	139,686	165,351	265,058	240,675	168,050
Butter, cks.	1,166,120	390,964	360,052	427,532	338,709	268,557
Butter, lbs.	57,392	39,091	12,583	3,502	2,710	1,852
Butter, cks.	10,461	5,170	3,913	1,201	3,593	425
Butter, lbs.	135	585	1,419	1,028	1,130	544
Butter, cks.	262,800	281,000	227,788	255,368	140,582	221,233
Butter, lbs.	137	474	1,112	719	865	483
Butter, cks.	930	1,758	589	956	1,115	1,011
Butter, lbs.	823	2,181	4,273	13,480	863	742
Butter, cks.	837,955	533,312	502,507	521,175	439,688	496,194
Butter, lbs.	25	118	43	87	5	32
Butter, cks.	609	581	496	326	1,792	1,733
Butter, lbs.	4,607	5,303	4,568	1,484	1,737	4,770
Butter, cks.	30,950	46,274	38,062	14,873	1,211	850
Butter, lbs.	112,913	117,863	76,190	45,967	26,169	25,522
Butter, cks.	700	8,300	3,870	1,700	700	2,480
Butter, lbs.	71,270	37,286	35,132	28,059	20,166	21,425
Butter, cks.	1,083	207	100	241	322	512
Butter, lbs.	45	167	212	1,433	74	74
Butter, cks.	107,639	60,078	119,717	101,540	18,207	9,672
Butter, lbs.	334,967	245,414	373,341	307,871	366,694	311,710
Butter, cks.	8,387	6,233	3,767	1,159	830	2,406
Butter, lbs.	758,294	732,125	639,369	571,949	472,526	434,467
Butter, cks.	1,431	788	851	701	1,084	601
Butter, lbs.	7,853	888	30	50	592	....
Butter, cks.	132,363	105,046	64,852	66,183	69,104	....
Butter, lbs.	269,386	144,262	130,432	120,430	63,281	54,250
Butter, cks.	6,979	7,499	6,443	4,614	3,338	6,437
Butter, lbs.	1,135	1,336	2,260	1,386	305	....
Butter, cks.	2,579	3,385	2,757	4,976	3,666	1,115
Butter, lbs.	2,606	2,413	2,647	1,818	....	....
Butter, cks.	54	46	49	72	267	147
Butter, lbs.	1,316	218	1,154	445	140	157
Butter, cks.	107,058	53,779	56,587	48,060	26,201	28,468
Butter, lbs.	369,601	216,960	412,928	204,643	244,442	216,974
Butter, cks.	9,988	6,741	8,900	2,371	946	763
Butter, lbs.	9,746,752	4,079,600	7,792,000	6,814,750	4,031,800	9,744,220
Butter, cks.	231	86	604	1,050	514	2,133
Butter, lbs.	1,180	1,104	1,164	1,465	2,099	509
Butter, cks.	4,364	2,729	1,939	1,496	3,219	1,650
Butter, lbs.	3,103	4,105	4,714	1,588	3,416	6,561
Butter, cks.	93,109	6,078	51,816	65,036	50,920	....
Butter, lbs.	3,633	6,275	7,399	2,627	1,932	130
Butter, cks.	13	144,000	361,561	147,000	114,000	155,000
Butter, lbs.	5,679	2,500,000	1,362,678	1,165,400	425,000	736,600
Butter, cks.	8,225	7,823	7,323	6,986	5,071	937
Butter, lbs.	72,896	71,893	82,432	91,451	66,855	53,170
Butter, cks.	3,040	5,309	7,682	4,902	3,618	3,803
Butter, lbs.	1,105	3,799	4,771	3,008	3,289	1,826
Butter, cks.	734	1,951	2,099	1,903	1,175	1,009
Butter, lbs.	117,104	97,651	86,947	83,597	63,345	73,873
Butter, cks.	2,831	3,071	2,066	2,342	2,761	760
Butter, lbs.	403,786	64,759	86,014	118,248	134,886	2,621

MISSISSIPPI.—In 1840, there were in the
 es; 623,197 neat cattle; 128,367 s
 to the value of \$369,482. There v
 1,654 bushels of barley; i

11,444 bushels of rye; 13,161,237 bushels of Indian corn; 175,196 lbs. of wool; 6,835 lbs. of wax; 1,630,100 bushels of potatoes; 83,471 lbs. of tobacco; 777,195 lbs. of rice; 193,401,577 lbs. of cotton. The produce of the dairy was valued at \$359,585; of the orchard at \$14,458; of lumber, \$192,794; tar, pitch, &c., 2,249 barrels.

There were in this State, in 1840, seven commercial and sixty-seven commission houses engaged in foreign trade, with a capital of \$673,900; 755 retail dry-goods and other stores, employing a capital of \$5,004,420; 228 persons engaged in the lumber trade, employing a capital of \$132,175; forty persons employed in internal transportation, and fifteen butchers, packers, &c., employing a capital of \$4,250.

The capital in manufactures was \$1,797,727. The exports and imports of the State are effected through New Orleans. The chief staple is cotton.

ARKANSAS.—In 1840 the whole amount employed in manufactures was \$424,647. There were in this State 51,472 horses and mules; 188,786 neat cattle; 42,151 sheep; 393,058 swine; poultry to the value of \$109,468. There were produced 105,828 bushels of wheat; 6,219 bushels of rye; 4,846,632 bushels of Indian corn; 189,553 bushels of oats; 293,608 bushels of potatoes; 64,943 lbs. of wool; 1,079 lbs. of wax; 148,439 lbs. of tobacco; 5,454 lbs. of rice; 6,028,642 lbs. of cotton; 1,542 lbs. of sugar; 586 tons of hay; 1,039 tons of hemp and flax. The products of the dairy were valued at \$59,205; of the orchard, at \$10,680; of the forest, at \$176,617.

There were ten commercial and ten commission houses engaged in foreign trade, with a capital of \$91,000; 263 retail dry-goods and other stores, with a capital of \$1,578,719; 263 persons employed in the lumber trade, with a capital of \$12,220. The foreign trade of this State not being direct, is merged in that of other States, especially Louisiana.

TENNESSEE.—Capital in manufactures in 1840, \$3,731,580. There were in this State, 341,409 horses and mules; 822,851 neat cattle; 741,598 sheep; 2,926,607 swine; poultry valued at \$606,989. There were produced 4,569,692 bushels of wheat; 4,809 bushels of barley; 7,035,678 bushels of oats; 304,320 bushels of rye; 17,118 bushels of buckwheat; 44,986,188 bushels of Indian corn; 1,060,332 lbs. of wool; 850 lbs. of hops; 50,907 lbs. of wax; 1,904,370 bushels of potatoes; 31,233 tons of hay; 3,344 tons of hemp and flax; 29,550,432 lbs. of tobacco; 7,977 lbs. of rice; 27,701,277 lbs. of cotton; 1,217 lbs. of silk cocoons; 258,073 lbs. of sugar. The products of the dairy were valued at \$472,141; and of the orchard, at \$367,105; value of lumber produced, \$217,606; 3,336 barrels of tar, pitch, &c., were made. Cattle are exported from the southern parts.

There is an abundance of limestone. Gypsum in large quantities has been discovered. Copperas, alum, nitre, and lead, are among the minerals, and some silver has been found. Saltpetre forms a considerable article of commerce. There are numerous salt springs, and some mineral springs.

KENTUCKY.—Capital in manufactures in 1840, \$5,945,250. There were 305,853 horses and mules; 787,008 neat cattle; 1,008,240

sheep; 2,310,533 swine; poultry to the value of \$536,439; there were produced 4,803,152 bushels of wheat; 17,491 bushels of barley; 7,155,974 bushels of oats; 1,321,373 bushels of rye; 8,169 bushels of buckwheat; 39,847,120 bushels of Indian corn; 1,786,847 lbs. of wool; 742 lbs. of hops; 38,445 lbs. of wax; 1,055,085 bushels of potatoes; 83,306 tons of hay; 9,992 tons of hemp and flax; 53,436,909 lbs. of tobacco; 16,376 lbs. of rice; 691,456 lbs. of cotton; 737 lbs. of silk cocoons; 1,377,835 lbs. of sugar. The products of the dairy amounted to \$931,363; of the orchard, \$434,933; of lumber, \$130,329. There were made 2,209 gallons of wine.

Among the mineral productions of Kentucky, are iron ore, coal, salt, and lime. The salt licks, as the springs are called, from the fact that cattle and wild animals have been fond of licking around them, are numerous, and salt is extensively manufactured, not only for home consumption, but for exportation. The greater part of the exports of this State pass down the Mississippi to New Orleans, and its chief imports are brought in steamboats by the Ohio river and other tributaries.

MISSOURI.—Capital in manufactures in 1840, \$2,704,405. There were in this State 196,132 horses and mules; 433,875 neat cattle; 348,018 sheep; 1,271,161 swine; poultry valued at \$270,647. There were produced 1,037,386 bushels of wheat; 9,801 bushels of barley; 2,234,947 bushels of oats; 68,608 bushels of rye; 15,318 bushels of buckwheat; 17,332,524 bushels of Indian corn; 562,265 lbs. of wool; 56,461 lbs. of wax; 783,768 bushels of potatoes; 49,083 tons of hay; 18,010 tons of hemp and flax; 9,067,913 lbs. of tobacco; 121,121 lbs. of cotton; 274,853 lbs. of sugar. The products of the dairy were valued at \$100,432; of the orchard at \$90,878; of lumber at \$70,355.

ILLINOIS.—Capital in manufactures in 1840, \$3,036,512. There were 199,235 horses and mules; 926,274 neat cattle; 395,672 sheep; 1,495,254 swine; poultry valued at \$309,204. There were produced 3,335,393 bushels of wheat; 82,251 bushels of barley; 4,988,008 bushels of oats; 88,197 bushels of rye; 57,884 bushels of buckwheat; 22,634,211 bushels of Indian corn; 650,007 lbs. of wool; 17,742 lbs. of hops; 29,173 lbs. of wax; 2,025,520 bushels of potatoes; 164,932 tons of hay; 1,976 tons of hemp and flax; 564,320 lbs. of tobacco; 460 lbs. of rice; 200,947 lbs. of cotton; 1,150 lbs. of silk cocoons; 399,813 lbs. of sugar. The products of the dairy were valued at \$428,175; of the orchard at \$126,756; of lumber, \$203,666. Value of skins and furs, \$39,412. There were made 474 gallons of wine.

INDIANA.—Capital in manufactures in 1840, \$4,132,043. There were in this State 241,036 horses and mules; 619,980 neat cattle; 675,982 sheep; 1,623,608 swine; poultry to the value of \$357,594. There were produced 4,049,375 bushels of wheat; 28,015 bushels of barley; 5,981,605 bushels of oats; 129,621 bushels of rye; 49,019 bushels of buckwheat; 28,155,887 bushels of Indian corn; 1,237,919 lbs. of wool; 38,591 lbs. of hops; 30,647 lbs. of wax; 1,525,791 bushels of potatoes; 178,029 tons of hay; 8,605 tons of flax and hemp; 1,820,306 lbs. of tobacco; 3,727,795 lbs. of sugar. The products of the dairy were valued at \$742,269; of the orchard at

\$110,065; of lumber at \$420,791. There were made 10,265 gallons of wine; and value of skins and furs, \$220,863.

OHIO.—Capital in manufactures in 1840, \$16,905,257. There were in this State 430,527 horses and mules; 1,217,874 neat cattle; 2,028,401 sheep; 2,099,746 swine; poultry to the value of \$551,193. There were produced 16,571,661 bushels of wheat; 212,440 bushels of barley; 14,393,103 bushels of oats; 814,205 bushels of rye; 633,139 bushels of buckwheat; 33,668,144 bushels of Indian corn; 3,685,315 lbs of wool; 62,195 lbs. of hops; 38,950 lbs. of wax; 5,805,021 bushels of potatoes; 1,022,037 tons of hay; 9,080 tons of hemp and flax; 5,942,275 lbs. of tobacco; 4,317 lbs. of silk cocoons; 6,363,386 lbs. of sugar. The products of the dairy were valued at \$1,848,869; of the orchard, at \$475,271; of lumber, \$262,821. There were made 11,524 gallons of wine; and 6,809 tons of pot and pearl ashes.

MICHIGAN.—Capital in manufactures in 1840, \$3,112,240. There were in this State 30,144 horses and mules; 185,190 neat cattle; 99,618 sheep; 295,890 swine; poultry to the value of \$82,730. There were produced 2,157,108 bushels of wheat; 127,802 bushels of barley; 2,114,051 bushels of oats; 34,236 bushels of rye; 113,592 bushels of buckwheat; 2,277,039 bushels of Indian corn; 153,375 lbs. of wool; 11,381 lbs. of hops; 4,533 lbs. of wax; there were produced 2,109,205 bushels of potatoes; 130,805 tons of hay; 755 tons of hemp and flax; 1,602 lbs. of tobacco; 266 lbs. of silk cocoons; 1,329,784 lbs. of sugar. The products of the dairy were estimated at \$301,052; and of the orchard at \$16,075; and of lumber at \$392,325.

WISCONSIN.—Capital in manufactures in 1840, \$635,926. There were in this Territory 5,735 horses and mules; 30,269 neat cattle; 3,462 sheep; 51,383 swine; value of poultry produced \$16,167. There were produced 212,116 bushels of wheat; 11,062 bushels of barley; 406,514 bushels of oats; 1,965 bushels of rye; 10,654 bushels of buckwheat; 379,359 bushels of Indian corn; 419,606 bushels of potatoes; 6,777 lbs. of wool; 1,474 lbs. of wax; 135,288 lbs. of sugar. The products of the dairy were valued at \$35,677.

IOWA.—Capital in manufactures in 1840, \$199,645. There were in this Territory 10,794 horses and mules; 38,049 neat cattle; 15,354 sheep; 104,899 swine; poultry to the value of \$16,529. There were produced 154,693 bushels of wheat; 728 bushels of barley; 216,385 bushels of oats; 3,792 bushels of rye; 6,212 bushels of buckwheat; 1,406,241 bushels of Indian corn; 23,039 lbs. of wool; 2,132 lbs. of wax; 234,063 bushels of potatoes; 17,953 tons of hay; 313 tons of hemp and flax; 8,076 lbs. of tobacco; 41,450 lbs. of sugar. The products of the dairy were valued at \$23,609; of the orchard, \$50; of lumber, \$50,280. Value of skins and furs, \$33,594.

INDIAN OR WESTERN TERRITORY.—This is guarantied to the Indians who have been driven westward. It is 600 miles long, and 300 to 600 broad. The river Platte is on its north; Missouri and Arkansas, east; Red river, south; and desert, west.

The following tables will furnish a summary of the products of the Western States compared with that of the rest of the Union.

MANUFACTURES IN THE WEST.

STATES AND TERRITORIES.	SILK.					FLAX.			MIXED.
	Reeled and other sorts.	Value.	Males employed.	Females & Children employed.	Capital invested.	Value.	Persons employed.	Capital invested.	Value produced.
	lbs.	dollars.	No.	No.	dollars.	dollars.	No.	dollars.	dollars.
Alabama	13	99	..	..	75	....	..	....	705
Mississippi	..	..	..	..	..	..	..	..	..
Louisiana	79	420	..	3	..	..	..	..	..
Tennessee	194	218	14	31	2,500	3,139	122	..	9,542
Kentucky	86	819	3	11	5,467	7,519	249	444	127,875
Ohio	652	3,740	23	27	2,290	11,737	31	242	280,293
Indiana	9	91	4	1	3	6,851	261	100	46,329
Illinois	17	235	..	1	10	1,480	50	..	11,711
Missouri	..	..	..	..	..	..	..	..	11,115
Arkansas	..	..	..	..	..	..	..	..	585
Michigan	6	34	2	..	50	30	..	..	..
Florida	14	15	..	..	..	..	..	..	..
Wisconsin	1	5	..	1	..	..	..	..	1,500
Iowa	..	..	..	..	..	..	..	..	..

STATES AND TERRITORIES.	MIXED.		TOBACCO.		HATS, CAPS, BONNETS, &c.				
	Persons employed.	Capital invested.	Articles Value.	Persons employed.	Capital invested.	Hats and Caps, &c.	Straw Bonnets.	Persons employed.	Capital invested.
	No.	dollars.	dollars.	No.	dollars.	dollars.	dollars.	No.	dollars.
Alabama	..	..	2,260	2	..	8,210	..	31	4,045
Mississippi	..	..	10	..	..	5,140	..	13	8,100
Louisiana	..	..	150,000	414	95,000	..	..	..	..
Tennessee	24	537	89,462	259	247,475	104,949	..	177	49,215
Kentucky	3,142	30,903	413,585	587	230,400	201,310	4,483	194	118,850
Ohio	552	183,415	212,818	187	68,810	728,513	3,028	963	369,637
Indiana	596	13,145	65,659	88	24,706	122,844	2,048	183	69,018
Illinois	49	8,233	10,139	24	3,093	28,395	1,570	68	12,918
Missouri	40	4,885	89,996	188	51,755	111,620	100	82	30,195
Arkansas	..	..	750	3	250	1,500	..	3	400
Michigan	..	..	5,000	12	1,750	30,463	659	42	20,007
Florida	..	..	10,480	21	5,240	1,500	..	..	750
Wisconsin	4	550	..	..	..	61	..	1	10
Iowa	..	..	40	2	..	19,900	5,100	..	..

LEATHER TANNERIES, SADDLIERIES, &c.

STATES AND TERRITORIES.	Tanneries.	Sole tanned.	Upper tanned.	Men employed.	Capital invested.	All other factories.	Articles Value.	Capital invested.
	No.	soles.	soles.	No.	dollars.	No.	dollars.	dollars.
	Alabama	142	36,705	42,777	300	147,463	137	180,152	58,332
Mississippi	128	15,332	15,093	149	70,870	42	118,167	41,945
Louisiana	25	12,760	13,705	88	132,025	7	108,500	89,550
Tennessee	454	133,547	171,329	909	484,114	374	359,050	154,540
Kentucky	387	107,676	155,465	978	567,954	548	732,646	369,835
Ohio	812	161,630	234,037	1,790	957,383	1,160	1,986,146	917,245
Indiana	428	122,780	157,581	978	399,627	579	730,001	247,549
Illinois	155	28,383	34,654	305	155,679	626	247,217	98,503
Missouri	155	31,959	55,186	235	308,936	340	298,345	179,527
Arkansas	37	9,263	9,811	70	43,510	545	17,400	8,830
Michigan	38	7,017	9,832	99	70,240	101	192,190	69,202
Florida	3	5,250	1,250	15	14,500	10	6,200	4,250
Wisconsin	1	150	150	3	2,000	13	11,800	7,002
Iowa	3	340	410	4	4,400	5	4,875	1,645

STATES AND TERRITORIES.	SOAP AND CANDLES.					DIS. & FER. LIQUORS.		
	Soap.	Tallow candles.	Spermaceti and wax candles.	Men employed.	Capital invested.	Distilleries.	Produce.	Ferries.
	lbs.	lbs.	lbs.	No.	dollars.	No.	gallons.	No.
Alabama	219,924	23,047	631	2	3,500	188	137,230	7
Mississippi	312,084	31,957	97	..	....	14	3,150	2
Louisiana	2,202,200	3,500,030	40,000	75	115,500	5	285,530	1
Tennessee	594,289	65,388	....	2	6,000	1,426	1,109,107	6
Kentucky	2,282,426	563,635	315	516	23,765	889	1,763,685	59
Ohio	3,603,036	2,318,456	151	105	186,780	390	6,329,467	59
Indiana	1,135,560	228,938	111	30	13,039	323	1,787,108	90
Illinois	519,673	117,698	42	25	17,345	150	1,551,684	11
Missouri	133,000	243,000	....	15	16,700	293	508,368	7
Arkansas	142,775	16,541	632	32	200	53	26,415	..
Michigan	78,100	57,975	....	6	6,000	34	337,761	10
Florida	10,887	2,812	168	..	..	..	..	..
Wisconsin	64,317	12,909	48	5	3,432	3	8,300	3
Iowa	9,740	4,438	282	1	....	2	4,310	..

STATES AND TERRITORIES.	DIS. AND FER. LIQUORS.			GLASS, EARTHENWARE, &c.						
	Produce.	Men employed.	Capital invested.	Glass-houses.	Cutting shops.	Men employed.	Value of articles, including millions.	Capital invested.	Potteries.	Value of articles.
	gallons.	No.	dollars.	No.	No.	No.	dollars.	dollars.	No.	dollars.
Alabama	200	220	34,212	..	..	..	....	....	7	8,300
Mississippi	132	12	910	..	..	..	....	....	1	1,200
Louisiana	2,400	27	110,000	..	..	..	....	....	1	1,080
Tennessee	1,835	1,341	218,182	..	..	..	....	....	29	51,600
Kentucky	214,589	1,092	315,308	..	1	2	3,000	500	16	24,090
Ohio	1,423,584	798	893,119	..	..	..	....	....	99	89,754
Indiana	188,392	500	292,316	..	..	..	....	....	45	35,885
Illinois	90,300	233	138,155	..	..	..	....	....	23	26,740
Missouri	374,700	365	189,976	..	..	..	....	....	12	12,175
Arkansas	....	38	10,205	..	..	..	....	....	..	..
Michigan	308,696	116	124,200	1	..	34	7,323	25,000	3	1,100
Wisconsin	14,200	11	14,400	..	..	..	....	....	..	..
Iowa	....	3	1,500	..	..	..	....	....	4	1,050

STATES AND TERRITORIES.	GLASS, &c.		SUGAR REFINERIES, CHOCOLATE, &c.					
	Men employed.	Capital invested.	Refineries.	Value produced.	Value of Chocolate.	Value of Confectionery.	Men employed.	Capital invested.
	No.	dollars.	No.	dollars.	dollars.	dollars.	No.	dollars.
Alabama	13	11,250	..	....	....	13,600	15	6,190
Mississippi	2	200	..	....	....	10,500	2	..
Louisiana	18	3,000	5	770,000	7,000	20,000	101	351,000
Tennessee	50	7,300	..	....	....	..	..	..
Kentucky	51	9,670	..	....	....	36,050	28	14,250
Ohio	119	43,450	1	3,000	....	60,450	43	26,800
Indiana	79	13,685	..	....	....	4,000	3	1,000
Illinois	56	10,225	..	....	....	2,240	3	825
Missouri	33	7,250	..	....	....	1,000	1	500
Arkansas	..	..	..	....	....	..	..	..
Michigan	4	625	..	....	....	3,000	3	1,200
Florida	..	..	..	....	....	..	..	..
Wisconsin	..	..	..	....	....	..	..	..
Iowa	7	250	..	....	....	..	..	..

STATES AND TERRITORIES.	POWDER MILLS.				DRUGS, MEDICINES, PAINTS & DYES.			
	Powder Mills.	Powder.	Men employed.	Capital invested.	Value of Medicinal Drugs, Paints, Dyes, &c.	Value of Turpentine and Varnish.	Men employed.	Capital invested.
	No.	Lbs.	No.	Dollars.	Dollars.	Dollars.	No.	Dollars.
Alabama	..	....	..	....	16,600	....	4	16,000
Mississippi	..	....	..	....	3,125	....	4	500
Louisiana	..	....	..	....	42,000	....	10	6,000
Tennessee	10	10 333	11	1,490	3,337	1,485	15	3,360
Kentucky	11	282,500	58	42,000	26,994	2,000	25	16,630
Ohio	2	222,500	13	18,000	101,880	200	70	126,335
Indiana	1	....	1	....	47,720	26	26	17,984
Illinois	..	....	..	....	19,001	5,000	20	13,350
Missouri	1	7,500	2	1,050	13,500	....	8	7,000
Arkansas	1	400	..	700	400	....	..	....
Michigan	..	....	..	....	1,560	....	3	650
Florida	..	....	..	....	200	....	1	500
Wisconsin	..	....	..	....	250	....	..	....
Iowa	..	....	..	....	2,340	....	7	....

STATES AND TERRITORIES.	CORDAGE.				PAPER.				
	Rope Walks.	Value produced.	Men employed.	Capital invested.	Factories.	Value produced.	Value of all other fabrics of Paper, Card, &c.	Men employed.	Capital invested.
	No.	Dollars.	No.	Dollars.	No.	Dollars.	Dollars.	No.	Dollars.
Alabama	..	....	..	....	..	....	....	..	....
Mississippi	..	....	..	....	..	....	....	..	....
Louisiana	..	....	..	....	..	....	....	..	....
Tennessee	28	132 630	258	84,230	5	46 000	14,000	87	93,000
Kentucky	111	1,292,276	1,888	1,023,130	7	44 000	....	47	47,500
Ohio	21	89 750	66	37,675	14	270,202	80,000	305	208,200
Indiana	5	5,850	11	2,970	3	86 457	54,000	100	68,739
Illinois	..	....	..	....	1	2,000	....	..	....
Missouri	21	98,490	139	71,589	..	....	....	..	....
Arkansas	..	....	..	....	..	....	....	..	....
Michigan	..	....	..	....	1	7,000	....	6	20,000
Florida	..	....	..	....	..	....	....	..	....
Wisconsin	..	....	..	....	..	....	....	..	....
Iowa	..	....	..	....	..	....	....	..	....

STATES AND TERRITORIES.	PRINTING AND BINDING.							
	Printing Offices.	Binderies.	Daily Papers.	Weekly Papers.	Semi and Tri-Weekly Papers.	Periodicals.	Men employed.	Capital invested.
	No.	No.	No.	No.	No.	No.	No.	Dollars.
Alabama	22	1	3	24	1	..	105	96,100
Mississippi	28	1	2	28	1	..	94	83,510
Louisiana	35	5	11	21	2	3	392	193,700
Tennessee	41	5	2	38	6	10	191	112,500
Kentucky	34	3	5	26	7	8	226	86,325
Ohio	159	41	9	107	7	20	1,175	446,720
Indiana	69	6	..	69	4	3	211	58,505
Illinois	45	5	3	33	2	9	175	71 300
Missouri	40	..	6	24	5	..	143	79,350
Arkansas	9	1	..	6	3	..	37	13,100
Michigan	28	2	6	26	..	1	119	62,900
Florida	10	1	..	10	..	..	39	35,200
Wisconsin	6	..	..	6	..	..	24	10,300
Iowa	4	..	..	4	..	..	15	5,700

MANUFACTURES IN THE WEST.

STATES AND TERRITORIES.	CARRIAGES & WAG'NS.			MILLS AND THE ARTICLES PRODUCED.						
	Value produced.	Men employed.	Capital invested.	Flouring Mills.	Flour produced.	Grist Mills.	Saw Mills.	Oil Mills.	Articles: Value.	Men employed.
	Dollars.	No.	Dollars.	No.	Barrels.	No.	No.	No.	Dollars.	No.
Alabama	88,891	235	49,074	51	23,664	797	521	16	1,225,425	1,386
Mississippi	49,693	132	34,345	16	1,809	806	309	28	486,861	923
Louisiana	23,350	51	15,780	3	...	276	139	50	706,785	973
Tennessee	219,807	518	80,878	255	67,881	1,565	977	26	1,023,664	2,100
Kentucky	168,724	533	79,378	258	273,088	1,515	718	23	2,437,937	2,067
Ohio	701,228	1,490	290,540	536	1,311,954	1,325	2,883	112	8,868,213	1,661
Indiana	163,135	481	78,116	204	224,624	846	1,248	54	2,329,134	2,224
Illinois	144,362	307	59,263	98	172,657	610	785	18	2,417,826	2,204
Missouri	97,112	201	45,074	64	49,363	636	393	9	960,058	1,326
Arkansas	2,675	15	1,555	10	1,430	292	88	1	33,847	409
Michigan	20,075	59	13,150	93	202,880	97	491	...	1,832,363	1,141
Florida	11,000	15	5,900	...	...	62	65	2	189,650	410
Wisconsin	2,600	8	3,25	4	900	29	124	...	350,993	850
Iowa	1,200	3	1,400	6	4,340	37	75	...	95,425	154

STATES AND TERRITORIES.	MILLS, &c.	SHIPS, &c.	HOUSEHOLD FURNITURE.			HOUSES.	
	Capital invested.	Value of Ships and Vessels built.	Value of Furniture.	Men employed.	Capital invested.	Brick & Stone Houses built.	Wooden Houses built.
	Dollars.	Dollars.	Dollars.	No.	Dollars.	No.	No.
Alabama	1,413,107	...	41,671	53	18,430	67	472
Mississippi	1,219,845	13,925	31,453	41	28,610	144	2,247
Louisiana	1,870,795	80,500	2,300	129	576,050	248	619
Tennessee	1,319,195	229	79,580	203	30,650	193	1,098
Kentucky	1,659,689	...	273,350	453	139,295	425	1,757
Ohio	4,931,024	522,855	761,146	1,928	534,317	970	2,764
Indiana	2,077,018	107,223	211,481	564	91,022	346	4,270
Illinois	2,147,618	39,200	84,410	214	62,223	331	4,133
Missouri	1,266,019	...	...	...	...	413	2,202
Arkansas	288,257	500	20,203	45	7,810	21	1,083
Michigan	2,460,200	10,500	22,494	65	28,050	39	1,280
Florida	488,950	14,100	...	36	18,300	9	306
Wisconsin	561,650	7,159	6,945	29	5,740	7	509
Iowa	166,650	...	4,600	12	1,350	14	483

STATES AND TERRITORIES.	HOUSES.		MUSICAL INST'NTS.		ALL OTHER MANUFACTURES.			
	Men employed.	Cost of Construction.	Value of Musical Instruments produced.	Men employed.	Capital invested.	Value of all other Manufactures not enumerated.	Capital invested.	Total Capital invested in Manufactures.
	No.	Dollars.	Dollars.	No.	Dollars.	Dollars.	Dollars.	Dollars.
Alabama	882	739,871	21	...	424,943	139,411	2,130,064	
Mississippi	2,487	1,175,513	...	...	144,347	79,727	1,797,727
Louisiana	1,484	2,736,944	...	...	5,000	417,699	6,430,699
Tennessee	1,467	427,402	...	...	490,671	189,846	3,731,589
Kentucky	2,883	1,039,172	4,500	6	679,029	551,762	5,945,259	
Ohio	6,060	3,776,823	8,454	11	1,549,592	5,329,734	16,905,257	
Indiana	5,519	1,241,312	...	...	684,771	393,278	4,132,043
Illinois	5,737	2,065,255	...	...	427,460	206,919	3,136,512
Missouri	1,966	1,441,573	500	2	230,083	282,965	2,704,405	
Arkansas	1,251	1,141,174	...	...	27,386	23,905	424,467
Michigan	1,978	571,005	...	...	132,870	97,821	3,112,240
Florida	689	327,913	...	...	37,280	5,000	669,490
Wisconsin	644	212,085	...	...	51,612	26,162	635,926
Iowa	324	135,967	...	...	34,445	8,450	199,645

The following deeply interesting pages we have taken the liberty of extracting from the late valuable Report made by McGregor to Parliament, upon the United States.*

From a series of articles on the internal trade of the United States, written by Mr. Scott, of Ohio, in which, although he reasons frequently on the most fallacious principles, he conveys much information, and some curious and not improbable computations, we extract the following passages :—

“ In the States of Massachusetts, New-York, Pennsylvania, and Ohio, the improvements of the age operated to some extent on their leading towns from 1830 to 1840. Massachusetts had little benefit from canals, railways, or steam power ; but her towns felt the beneficent influence of her labor-saving machinery moved by water power, and her improved agriculture and common roads. The increase of her nine principal towns, commencing with Boston and ending with Cambridge, from 1830 to 1840, was 66,373, equal to fifty-three per cent. ; being more than half the entire increase of the State, which was but 128,000, or less than twenty-one per cent. The increase, leaving out those towns, was but eleven per cent. Of this eleven per cent., great part, if not all, must have been in the towns not included in our list.

“ The growth of the towns in the State of New York, during the same period, is mainly due to her canals. That of the fourteen largest, from New York to Seneca, inclusive, was 204,507, or sixty-four and a half per cent. ; whereas the increase in the whole State was less than twenty-seven per cent., and of the State, exclusive of these towns, but nineteen per cent. Of this, it is certain that nearly all is due to the other towns not in the list of the fourteen largest.

“ Pennsylvania has canals, railways, and other improvements, that should give a rapid growth to her towns. These works, however, had not time, after their completion, to produce their proper effects, before the crash of her monetary system nearly paralyzed every branch of her industry, except agriculture and the coal business. Nine of her largest towns, from Philadelphia to Erie, inclusive, exhibit a gain, from 1830 to 1840, of 84,642, being at the rate of thirty-nine and one-third per cent. This list does not include Pottsville, or any other mining town. The increase of the whole State was but twenty-one and three-quarters per cent.

“ Ohio has great natural facilities for trade, in her lake and river coast ; the former having become available only since the opening of the Erie canal, in 1826, and that to little purpose before 1830. She has also canals, which have been constructing and coming gradually into use since 1830. These now amount to about 760 miles. For the last five years, she has also constructed an extent of M^r Adam roads exceeding any other State, and amounting to hundreds of miles. Her railways, which are of small extent, have not been in operation long enough to have produced much effect. From this review of the State, it will not be expected to exhibit as great an increase in town population, from 1830 to 1840, as will distinguish it hereafter. The effects of her public improvements, however, will be clearly seen in

* Mr. Scott's papers, if we mistake not, appeared originally in Hunt's Magazine,

the following exhibit. Eighteen of her largest towns, and the same number of medium size and average increase, contained, in 1830, 58,310, which had augmented in 1840, to 138,916; showing an increase of 138 per cent. The increase of the whole State, during the same period, was sixty-two per cent. The north-west quarter of the State has no towns of any magnitude, and has but begun to be settled. This quarter had but 12,671 inhabitants in 1830, and 92,050, in 1840.

“The increase of the twenty largest towns of the United States, from New York to St. Louis inclusive, from 1830 to 1840, was fifty-five per cent., while that of the whole country was less than thirty-four per cent. If the slave-holding States were left out, the result of the calculation would be still more favorable to the towns.

“The foregoing facts clearly show the strong tendency of modern improvements to build towns. Our country has just begun its career; but as its progress in population is in a geometrical ratio, and its improvements more rapidly progressive than its population, we are startled at the results to which we are brought, by the application of these principles to the century into which our inquiry now leads us.

“In 1840, the United States had a population of 17,068,666. Allowing its future increase to be at the rate of thirty-three and one-third per cent., for each succeeding period of ten years, we shall number, in 1940, 303,101,641. Past experience warrants us to expect this great increase. In 1790, our number was 3,927,827. Supposing it to have increased each decade, in the ratio of thirty-three and one-third per cent., it would, in 1840, have amounted to 16,560,256; being more than 500,000 less than our actual number as shown by the census. With 300,000,000, we should have less than 150 to the square mile for our whole territory, and but 220 to the square mile for our organized States and Territories. England has 300 to the square mile. It does not, then, seem probable that our progressive increase will be materially checked within the 100 years under consideration. At the end of that period, Canada will probably number at least 20,000,000. If we suppose the portion of our country, east and south of the Appalachian chain of mountains, known as the Atlantic slope, to possess at that time 40,000,000, or near five times its present number, there will be left 260,000,000 for the great central region between the Appalachian and Rocky mountains, and between the Gulf of Mexico and Canada, and for the country west of the Rocky mountains. Allowing the Oregon territory 10,000,000, there will be left 250,000,000 for that portion of the American States lying in the basins of the Mobile, Mississippi, and St. Lawrence. If, to these, we add 20,000,000 for Canada, we have 270,000,000 as the probable number that will inhabit the North American valley at the end of the one hundred years commencing in 1840. If we suppose one-third, or 90,000,000 of this number to reside in the country as cultivators and artisans, there will be 180,000,000 left for the towns—enough to people 360, each containing 500,000. This does not seem so incredible as that the valley of the Nile, scarcely twelve miles broad, should have once, as historians tell us, contained 20,000 cities.

“But, lest one hundred years seem too long to be relied on, in a calculation having so many elements, let us see how matters will stand fifty years from 1840, or forty-seven years from this time. The ratio of increase we have adopted cannot be objected to as extravagant for this period. In 1890, according to that ratio, our number will be 72,000,000. Of these, 22,000,000 will be a fair allowance for the Atlantic slope. Of the remaining 50,000,000, 2,000,000 may reside west of the Rocky mountains, leaving 48,000,000 for the great valley within the States. If, to these, we add 5,000,000 as the population of Canada, we have an aggregate of 53,000,000 for the North American valley. One-third, or say 18,000,000, being set down as farming laborers and rural artisans, there will remain 35,000,000 for the towns, which might be seventy in number, having each 500,000 of souls. It can scarcely be doubted that, within the forty-seven years, our agriculture will be so improved, as to require less than one-third to furnish food and raw materials for manufacture for the whole population. Good judges have said that we are not now more than twenty or thirty years behind England in our husbandry. *It is certain that we are rapidly adopting her improvements in this branch of industry; and it is not to be doubted that very many new improvements will be brought out, both in Europe and America, which will tend to lessen the labor necessary in the production of food and raw materials.*

“The tendency to bring to reside in towns all not engaged in agriculture that machinery and improved ways of intercourse have created, has already been illustrated by the example of England and some of our older States. Up to this time our North American valley has exhibited few striking evidences of this tendency. Its population is about 10,500,000; but, with the exception of New Orleans, Cincinnati, and Montreal, it has no large towns. In Ohio, the oldest (not in time but in maturity) of our western States, the arts of manufactures have commenced their appropriate business of building towns. Cincinnati, with its suburbs, has (1840) upwards of 50,000 inhabitants; a larger proportion of whom are engaged in manufactures and trades, than of either of the sixteen principal towns of the Union, except Lowell. The average proportion so engaged in all these towns, is 1 to 8.79. In Cincinnati, it is 1 to 4.50. Indeed, our interior capital has but two towns (New-York and Philadelphia) before her, in number of persons engaged in manufactures and trades. Our smaller towns, Dayton, Zanesville, Columbus and Steubenville, having each about 6,000 inhabitants, have nearly an equal proportion engaged in the same occupation.

“These examples are valuable only as indicating the direction to which the industry of our people tends, in those portions of the West, where population has attained a considerable degree of density. Of the 10,500,000 now inhabiting this valley, little more than 500,000 live in towns; leaving about 10,000,000 employed in making farms out of the wilds, and producing human food and materials for manufactures. Even since the late period when these remarks were written, many of the interior towns have greatly increased in population.

“When, in 1890, our number reaches 53,000,000, according to our estimate, there will be but one-third of this number (to wit, 18,000,000)

employed in agriculture and rural trades. Of the increase up to that time (being 42,500,000), 8,000,000 will go into rural occupations, and 34,500,000 into towns. This would people sixty-nine towns, with each 500,000.

“Should we, yielding to the opinion of those who may believe that more than one-third of our people will be required for agriculture and rural trades, make the estimate on the supposition that one-half the population of our valley, forty-seven years hereafter, will live on farms, and in villages below the rank of towns, the account will stand thus: 26,500,000 (being the one-half of 53,000,000 in the valley) will be the amount of the rural population; so that it must receive 16,500,000 in addition to the 10,000,000 it now has. The towns in the same time, will have an increase of 26,000,000, in addition to the 500,000 now in them. Where will these towns be, and in what proportion will they possess the 26,500,000 inhabitants?

“One of them will be either St. Louis or Alton; everybody will be ready to admit that. Still more beyond reach of doubt or cavil, is Cincinnati. We might name also Pittsburg and Louisville; but we trust that our readers, who have followed us through our former articles, are ready to concur in the opinion that the greatest city of the Mississippi basin will be either Cincinnati or the town near the mouth of the Missouri, be it Alton or St. Louis. Within our period of forty-seven years, we have no doubt it will be Cincinnati. She is now in the midst of a population so great and so thriving; and, on the completion of the Miami canal, which will be within two years, she will so monopolize the exchange commerce at that end of the canal between the river and lake regions, that it is not reasonable to expect she can be overtaken by her western rival for half a century.

“But such has been the influx of settlers within the last few years to the lake region, and so decided has become the tendency of the productions of the upper and middle regions of the great valley to seek a market at and through the lakes, that we can no longer withstand the conviction that, even within the short period of forty-seven years, a town will grow up, on the lake border, greater than Cincinnati. The staple exports, wheat and flour, have for years so notoriously found their best markets at the lake towns, that every cultivator, who reasons at all, has come to know the advantage of having his farm as near as possible to lake navigations. This has, for some years past, brought immigrants to the lake country from the river region of these States, and from the States of Pennsylvania, Maryland and Virginia, which formerly sent their immigrants mostly to the river borders. The river region, too, not being able to compete with its northern neighbor in the production of wheat, and being well adapted to the growth of stock, has of late gone more into this department of husbandry. This business, in some portions, almost brings the inhabitants to a purely pastoral state of society, in which large bodies of land are of necessity used by a small number of inhabitants. These causes are obviously calculated to give a dense population to the lake country, and a comparatively sparse settlement to the river country. There are other causes not so obvious, but not less potent or enduring. Of these, the superior accessibility of the lake country from the great northern hives of emigration, New England and New York.

is first deserving attention. By means of the Erie canal to Oswego and Buffalo, and the railway from Boston to Buffalo, with its radiating branches, these States are brought within a few hours' ride of our great central lake; and at an expense of time and money so small as to offer but slight impediment to the removal of home, and household goods. The lakes, too, are about being traversed by a class of vessels, to be propelled by steam and wind, called Ericson propellers, which will carry emigrants with certainty and safety, and at greatly reduced expenses.

"European emigration hither, which first was counted by its annual thousands, then by its tens of thousands, has at length swelled to its hundred thousands, in the ports of New York and Quebec. These are both but appropriate doors to the lake country. It is clear, then, that the lake portion will be more populous than the river division of the great valley."

These and the following remarks must be considered as speculative—some scarcely probable, though none are impossible.

"It has been proved that an extensive and increasing portion of the river region seeks an outlet for its surplus productions through the lakes. In addition to the proof given on that subject, we will compare the exports, in bread-stuffs and provisions, of New Orleans and Cleveland—the former for the year beginning the 1st of September, 1841, and ending the 31st August, 1842; and the latter for the season of canal navigation in 1842. All the receipts of Cleveland, by canal, are estimated as exports; as there is no doubt that she receives coastwise and by wagon, more than enough to feed her people. The exports from New Orleans of the enumerated articles, and their price, are as stated in previous Nos. of this magazine. Of the articles, then, of flour, pork, bacon, lard, beef, whiskey, corn, and wheat—

New Orleans exported to the value of	-	\$1,446,989
Cleveland	" " "	4,431,739

"The other articles of bread-stuffs and provisions received at New Orleans during that year, from the interior, are of small amount, and obviously not sufficient for the consumption of the city. Not so with Cleveland. The other articles of grain and provision shipped last year from this port, added to the above, will throw the balance decidedly in her favor. If we suppose, what cannot but be true, that all the other ports of the upper lakes sent eastward as much as Cleveland, we shall have the startling fact, that this lake country, but yesterday brought under our notice, already sends abroad more than twice the amount of human food that is shipped from the great exporting city of New Orleans, the once-vaunted sole outlet of the Mississippi valley.

"Two short canals, one of about 100 miles, connecting the Illinois canal with the Mississippi, at or near the mouth of Rock river; and the other of about 175 miles, connecting the southern termination of the Wabash and Erie canal, at Terre Haute, with the Mississippi, at Alton—would, with the canals already finished, or in progress, secure to the lakes not less, probably, than three-fourths of all the external trade of the river valley. With the Wabash and

will make a heavy draft on the trade of the river valley; and every canal, and railroad, and good highway, carried from the lakes, or lake improvements, into that valley will add to the draft. The lake towns will then not only have a denser population in the region immediately about them, and monopolize all the trade of that region, but they will have at least half the trade of the river region. They will be nearer and more accessible to the great marts of trade and commerce of the old States and the old world; and this advantage will be growing, in consequence of the progressive removal of impediments to navigation between the lakes and the ocean.

“Long within the period under consideration, the position of Cleveland will be much more favorable for concentrating the business of the surrounding country than that of Buffalo. *Canada will, before that time, form a part of our commercial community, whether she be associated with us in the government or not. She will then have about 5,000,000 of people. The American shores of the lakes lying above the latitude of Cleveland will be still more populous.*

“Cleveland is the lake port for the great manufacturing hive at the head of the Ohio river, so made by the Mahoning canal, which connects her with Pittsburgh. She commands, and she will long command, by means of her 500 miles of canal and slack-water navigation, the trade of a part of western Pennsylvania, most of western Virginia, and nearly all of the east half of the State of Ohio, in the intercourse of their inhabitants with the lake coasts, the eastern States, Canada, and Europe. Her position is handsome, and although her water-power is small, the low price of coal will enable her to sustain herself as a respectable manufacturing town. Her harbor, like that of Buffalo, though easy of entrance, is not sufficiently capacious. If coal should not be found on Lake Huron, more accessible to navigation than the beds on the canal south of Cleveland, this article will greatly increase her trade with the other lake ports. It is now sold on her wharves at eight cents per bushel.

“A glance at the map of the country will suffice to show that Buffalo is not well situated to be a place for the exchange of agricultural productions of the cold regions for those of the warm regions of the valley. In that respect, Cleveland, though not unrivaled, is clearly in a better position than Buffalo. As a point for exchanging the products of the field for manufactured goods, Buffalo will not probably for any long time, have the advantage of Cleveland. Such traders as live within the influence of the canals and rivers that pour their surplus products into Cleveland, and stop short of New York and Boston, will, it seems to us, be more likely to purchase in Cleveland than in Buffalo. Not every man who supplies a neighborhood with store-goods relishes a voyage on the sometimes tempest-tossed waters of the lake; and, as we before remarked, Buffalo now being but a few hours' ride from New York or Boston, by a pleasant and safe conveyance, will hardly stop many purchasers of goods from those great markets. On the completion of the Canadian canals, Cleveland will have the advantage of Buffalo in foreign trade, for the following reasons:—Her articles of export will be cheaper; and, by that time, as we believe, more abundant. By means of her canals and roads, Cleveland is a primary gathering-point of these articles.

Not so Buffalo. To arrive at her store-houses, these products must be shipped from the store-houses of other ports up the lakes, where they must be presumed to bear nearly the same price as at Cleveland. The cost of this shipment, together with a profit on it, will then be added, and, by so much, enhance their price in Buffalo."

"Is it probable, that within the period under consideration, Cleveland will have successful rivals in Maumee, Detroit, or Chicago ?

"We dare say that when the people of the city of old and renowned English York were informed, that in the wilds of America, some settlers had named their collection of rude houses New York, they felt no other emotion, than contempt, and treated the presumptuous ambition of the settlers with derision. It is probable that the inhabitants of old English Boston held in like contempt the assumption of the name of their town by those who planted the capital of New England. Who, forty-seven years ago, would not have ridiculed the opinion, if any one had been visionary enough to express it, that, within that time, there would grow up, in the valley of the Ohio, a city containing 50,000 inhabitants; and that within the same period, that part of the north-western territory now composing the State of Ohio, would contain nearly 2,000,000 of people? We then had, as a basis of increase, but 4,000,000; whereas it is now over 18,000,000; and, including Canada, near 20,000,000. For the past forty-seven years our growth has been from 4,000,000 to near 20,000,000. During the next forty-seven years, it will be, according to our estimate, from near 20,000,000, to 77,000,000; or, according to the more elaborate and probably more correct estimate of Professor Tucker, 55,000,000. This increase will certainly make it necessary that many towns, now small, should become great; and sensible men, when contemplating their probable destiny for half a century in advance, will look at the natural and artificial advantages of our lake towns, rather than at the few thousands, more or less, of present population. The towns under consideration are all destined to become large. The leading advantages of Cleveland have been already stated. Detroit has a pleasant site, and a noble harbor. A few M'Adam roads, leading north, north-west, and west, into the interior, would give her the direct trade of a large and fertile portion of Michigan. Until such roads, or some reasonably good substitute, are made, the railways leading north and west will, at least while they are new and in good order, make the chief gathering points of trade at their interior terminations, and at convenient points on their line. Pontiac, Ypsilanti, Ann Arbor, and other towns west, will cut off from Detroit, and centre in themselves the direct trade with the farmers, which, with good wagon-roads, without the railways, would have centred in Detroit. One train of cars will now bring to her warehouses what would have been brought to her stores by 100 wagons.

"Maumee has a harbor capacious enough to accommodate the commerce of a great city. Good harbors may be made, without a very heavy cost, at Cleveland and Chicago, either by excavating the low grounds bordering their present harbors, or by break-waters and piers in the lakes outside. Some expenditure will also be needed to deepen the entrance into the Maumee harbor, and to remove obstructions. Maumee has greatly the advantage

over her rivals. Cleveland has but a small amount; whereas, Maumee has it to an extent unrivaled by any towns on the lake borders above Buffalo; and it is so placed, as to possess the utmost availability. Along her harbor, for thirteen miles, the canal passes on the margin of the high bank that overlooks it. This canal—a magnificent mill-race, averaging near seven feet deep, and seventy feet wide at the water-line—is fed from the Maumee river, seventeen miles above the head of the harbor, and is carried down on the level of low water in the river above, for twenty-two miles, to a point two miles below the head of the harbor, where it stands on a table-land, sixty-three feet above the harbor. Descending, then, by a lock seven feet, the next level is two miles long, and stands fifty-six feet above the harbor. Descending again by a lock seven feet, the level below is three miles and a half long, and stands forty-nine feet above the harbor. Again descending, within the city of Toledo, by four locks thirty-four feet, the next and last level is nearly five miles long, and stands fifteen feet above the harbor. At many points of these thirteen miles, the water may be used conveniently from the canal to the harbor; and at most of these points it may be used directly on the harbor.

“In the exchange of agricultural products of a warm and of a cold climate, Cleveland, by her canals and her connection with the Ohio, can claim south, as against the Miami canal, no farther than western Virginia and eastern Kentucky, Maumee will supply the towns on the lakes Erie, Huron, and probably Ontario, with cotton, sugar, molasses, rum (may its quantity be small), rice, tobacco, hemp (perhaps), oranges, lemons, figs, and, at some future day, such naval stores as come from the pitch-pine regions of Tennessee, Mississippi, and Louisiana. Chicago will furnish a supply of the same articles to Lake Michigan, Lake Superior, when that lake becomes accessible to her navigation, and perhaps the northern portion of Lake Huron.

“Maumee will have in this trade the chief control of not less than 100,000 square miles—say 12,000 in Ohio, 30,000 in Kentucky, 30,000 in Indiana, 10,000 in Illinois, 13,000 in Tennessee, 5,000 in Mississippi and Alabama, and 5,000 in Michigan; to say nothing of her claims on small portions of Missouri and Arkansas. This domain is half as large as the kingdom of France, and twice as fertile. The Miami canal, connecting Maumee with Cincinnati, will, with that part of the Wabash and Erie which forms their common trunk after their junction, be 235 miles long. The Wabash and Erie canal, from Maumee to Terre Haute, will be 300 miles long. Of this, all but thirty-six miles at its northern extremity will be in operation the present season. By means of these canals, and the rivers with which they communicate, great part of this extensive region will enjoy the advantage of a cheap water transport for its rapidly increasing surplus.

“Chicago, on the completion of the Illinois canal, may command, in its exchange of agricultural for manufactured products, an extent of territory as large as that controlled by Maumee.”*

* It will be observed, that in all of these remarkable speculations NEW ORLEANS scarcely receives a glance—a great city which doubles its population and its trade every five or ten years; and is already the second in the Union, the spontaneous growth of the west.—Ed.

We conclude the statistics which we are enabled to present at this time, of the West, with a few observations, and a table showing its approximate population in 1847, according to the estimate of Mr. Darby in a letter to the Hon. John C. Calhoun. We draw upon a previous number of our Review.

"The population of these vast territories was, in 1800, 482,777, having increased about one and a half per cent. per annum since 1790. In 1810 it amounted to 1,090,158, having doubled in ten years; in 1820, 2,217,464, having doubled again; in 1830, 3,672,569, or about seven to the square mile; in 1840, 5,302,918, or ten to the square mile. In these items the western portions of New York, Pennsylvania, and Virginia, are not included. If they be added for 1840, the total western population may be set down at 7,948,789, or fourteen to the square mile. The following table, prepared by Mr. Darby for the use of government, is computed on the supposition that the decennial increase from 1830 to 1840, has since been preserved:

POPULATION OF THE GREAT CENTRAL BASIN IN 1847.

Western New York, - - -	50,630	Arkansas, - - - - -	161,600
Western Pennsylvania, -	564,600	Missouri, - - - - -	529,000
Western Virginia, - - -	222,300	Illinois, - - - - -	867,000
Kentucky, - - - - -	834,970	Indiana, - - - - -	891,561
Tennessee, - - - - -	857,590	Ohio, - - - - -	1,862,400
Alabama, - - - - -	759,500	Michigan, - - - - -	321,000
Mississippi, - - - - -	459,070	Iowa, - - - - -	*60,000
Louisiana, - - - - -	434,100	Wisconsin, - - - - -	*50,000

* Greatly short of the reality.

Total, - - - 8,925,695

Being about eighteen to the square mile, or one-ninth the density of Great Britain, Portugal, Spain, and France. The whole population of the United States at the same period being computed at 21,174,557."

The following late results of investigations, &c., are furnished in the report of the St. Louis delegation, made to the Chicago Convention, said to have been prepared by Thomas Allen, of St. Louis.

We are now enabled to form a table showing the cost of river transportation in the Valley of the Mississippi:

Cost of running 1,190 steamboats,	\$32,725,000
Insurance on \$16,188,561, at 12 per ct.,	1,942,627
Interest on \$16,188,561, at 6 per ct.,	971,313
Wear and tear of boats, 24 per ct.,	3,885,254
Tolls on the Louisville and Portland Canal,	250,000
Cost of flat-boats, (included because sacrificed at N. O.)	1,380,000

Total cost of transportation annually, . . . \$41,154,194

It is impossible to estimate the number of persons among whom, for wages, wood, coal, boat stores, provisions, &c., this almost incredible sum of forty one millions of dollars is annually distributed. Suffice it to say, more or less of it reaches every family and every cabin, situated upon a double coast of river navigation, extending over 15,000 miles; while, as a tax, it falls, not insensibly, upon every producer and consumer in the entire valley. It affects the producer, because

to realize, and the same impediment to the returns increases the cost of the necessaries he purchases for consumption. This great cost is a tax upon the surplus produce, enterprise, industry and trade of the country.

The commerce of a country that can flourish under such a burden of taxation must evidently be very large. The extent of it is such, indeed, as is not generally apprehended. In fact, in estimating it from the surest data, the results to which our figures carry us almost stagger our own belief. Yet our conclusions cannot be avoided.

We have 1,190 steamboats, carrying 249,054 tons. On the supposition that, upon an average, each boat makes 20 trips (40 voyages) a year, the whole are capable of carrying annually 9,962,160 tons. Adding to this the freights of 4,000 flat boats, carrying an average of 75 tons each, making 300,000 tons more, we have an aggregate annual tonnage of 10,252,160. It may be insisted that the boats do not always carry full freights; they evidently carry enough to make their business an active and profitable one, while the amount they discharge at New Orleans alone requires the services of 2,085 vessels, to export from that city the surplus beyond its own consumption.

Exports of New Orleans, foreign and coastwise, 1845, \$47,361,310 84
 Exports of New Orleans, foreign and coastwise, 1846, 57,490,407 08
 Increase in 1846, 10,130,096 24

The value of western products received at New Orleans from the interior for the last 5 years, including the present, is as follows :

1842-43,	\$53,728,054
1843-44,	60,094,716
1844-45,	57,199,122
1845-46,	77,193,464
1846-47, (estimated,)	84,912,810

Showing an annual average increase of over 10 per cent.

An equal amount, it is supposed, finds its way to the Atlantic cities through Pittsburgh and the lakes and canals of the interior. This is not an unwarranted supposition. The exports of a few of the principal towns on the Lakes in 1846 were as follows :

Cleveland, Ohio,	\$7,040,402
Erie, Pa.,	1,073,246
Michigan, from all ports,	4,647,608
Chicago, for the year 1845,	1,500,000
Receipts by Canals and Railroads, at Toledo, O.,	3,519,067
At Buffalo, 1846, flour, bbls.,	1,291,233
At Buffalo, bushels wheat,	3,613,569
At Buffalo, lbs. bacon,	2,220,673
At New Orleans, 1846, flour, bbls.,	837,985
At New Orleans, bbls. and sks. wheat,	403,786
At New Orleans, lbs. bacon,	492,700

Exports of Pittsburgh, East, 1847.—The amount of freights shipped from Pittsburgh eastward, from the 15th of March to the 31st of May, of this present year, not including the shipments of the 31st, is registered at 73,936,390 lbs., conveyed in 1,300 canal boats. From the same period of the year 1846 to the first of June of that year,

amount transported eastward was 40,109,820 lbs., conveyed in 939 boats—showing an excess for the present year, thus far, over a similar period last year, of 33,826,570 lbs. A single item will give point to the exposition of this canal trade. From the 15th of March, 1847, to the 1st of May, there were shipped eastward on the canal 54,042 barrels of flour. The item of pork for the same period of little over six weeks, shows 22,621 barrels, bacon, 4,073,838 lbs.; lard, 3,729,584 lbs.; hemp, 1,223,988 lbs.; tobacco, 975,148 lbs.

There are to be added to these sums the shipments from one port to another of the West, for home consumption, of the products of our manufactories, and other results of skill, industry and capital. An intelligent committee at Cincinnati, in 1844, estimated the whole of this interchange of commodities at an aggregate of seventy millions of dollars. Estimating its annual increase at 10 per cent., it is now equal to \$93,000,000.

Thus we have of the domestic products of the Valley of the Mississippi annually put afloat upon its waters, a total of \$262,825,620.

The returns, or imports of specie, bullion and goods, from the Atlantic States and foreign countries, by all routes, are estimated as equivalent to the value of our exports of domestic produce. Then we have, as the grand aggregate value of the commerce annually afloat upon the navigable waters of the Valley of the Mississippi, the sum of \$432,651,240, being nearly double the amount of the whole foreign commerce of the United States.

Imports of the United States for 1845-6, . . .	\$121,691,797
Exports of " " 1845-6, . . .	113,488,516

Total, \$235,180,313

From 1822 to 1827 the loss of property on the Ohio and Mississippi, by snags alone, including steam and flat boats, and their cargoes, amounted to \$1,382,500.*

The losses on the same from 1827 to 1832 were reduced to \$381,000, in consequence of the beneficial service of several boats employed by the Federal Government in removing snags. In the year 1830, in consequence of the successful operation of the snag boats, not a single steamboat was lost by snags.

From 1833 to 1838 inclusive, the Secretary of the Treasury reported forty steamboats snagged on the Mississippi and its tributaries—a number evidently much below the truth, and valued at \$640,000.

In 1839, the total loss of boats reported was forty—of which twenty-one were snagged, and seven struck upon rocks and other obstructions. Value of twenty-eight snagged, &c., \$448,000.

In 1840, the total number snagged was 21—value \$336,000.

In 1841, whole number reported sunk forty-nine—snagged twenty-nine—value \$464,000.

In 1842 the whole number reported lost was sixty-eight. The number snagged is not ascertained. In the space of about one month succeeding the 11th of September of that year, the losses on the Mississippi, between St. Louis and the mouth of the Ohio, a distance of only 180 miles, were \$234,000, principally by snags. Within the

* Abridged Report in Baltimore American.

next succeeding seventeen months there were seventy-two steamboats lost, valued at \$1,200,000, besides their valuable cargoes.

In 1846 the whole number sunk or destroyed was thirty-six, with an aggregate tonnage of 7,507. Of this number twenty-four were sunk by snags, sunken logs, or rocks, and valued at \$697,500. To this sum is to be added \$36,487 as the estimated expense of repairing sixty-six steamboats, partially injured in that year, and of fourteen flat and keel boats lost or injured; the value of eight of them snagged. Taking into the account the damage to cargoes saved, the expense of the labor of saving property endangered, the value of the time of persons thrown out of employment, the losses by delays to the shippers and consignees, the aggregate loss was one million of dollars for 1846.

The Report estimates the annual loss by destruction of boats, caused by removable obstructions in the rivers, at two millions of dollars annually. Of this amount Government loses its full share, as it has at risk on these waters not less than \$5,000,000 annually. "This," it adds, "is annihilated—so much destroyed of the wealth of the country, amounting every ten years to a sum equal to the purchase money paid by the Government for all Louisiana. It is undoubtedly true, that there are lying within the space of the 200 miles between the mouths of the Ohio and the Missouri rivers, the wrecks of over ninety steamboats."

Taking the losses of life attending the disasters of the St. Louis boats, in 1841-2, as a basis, the number of lives annually destroyed in consequence of obstructions, may be estimated at 166. Oftentimes go down among them characters distinguished for industry and virtue, carrying with them their families and fortunes, in money sufficient, if so applied, to remove every snag from the channel.

The sums of money expended for improvements on the western rivers, from 1824 to 1840, was \$2,528,000. The sum appropriated for light-houses, beacons, piers and harbors on the sea-coast, during the same time, was \$12,901,123.

The city of St. Louis alone owns 23,800 tons of steamboat tonnage, worth \$1,547,000. During 1846 there arrived at that port, exclusive of 801 flat-boats, steamboats with a tonnage of 467,824 tons. The total annual commerce of St. Louis, imports and exports included, although yet in its infancy, is estimated at over \$75,000,000, equaling nearly one-third of the whole foreign commerce of the United States.

The following extract from the Appendix of the Report is worthy of special attention :

The cost of running a steamboat on the western rivers is *six times greater* than the cost incurred upon the Lakes. For proof of this: The capital invested in the vessels of the Upper Lakes is estimated at \$6,000,000, and the cost of running them (exclusive of insurance and interest on the capital) is stated to be about \$1,750,000, or about one-third of their value. The capital invested in the steamboats of the Valley of the Mississippi is \$16,188,561, and the cost of running them (exclusive of insurance and interest) is estimated at \$32,752,000 or more than double their value.

Having hurriedly glanced at the field of labor which we have marked out for ourself. in the further conduct of the Review, and

presented some of the leading statistics of western trade and progress, it will be necessary, in order to prevent a too great extension, that our present paper be brought to a close. We regret that so meagre are the sources of information it is almost impossible to give the latest data, or that full and complete and minute information which is desirable. However, the meeting of the Convention at Chicago, and the Report of the Committee appointed by it, and referred to in other pages of this work, will, there can be little question, remedy all deficiencies; and the statistics of the West be henceforward more easily obtained.

It will be seen that we have been obliged to rely, in many instances, upon the returns of the census of 1840, taken by government, it being almost impossible to obtain later information of the character there embraced. This census, as we before observed, can give no very adequate notion of the present condition of the West, the progress of seven years having worked, in many quarters, such extraordinary changes. Nevertheless, a general notion may be formed, and an approximate estimate made, which must suffice in the absence of more precise data.

We commend the volumes of Dr. Monette, with which the present article opens, to the American people, as the first effort to furnish a complete history of their great western domain and territories, most signally successful, and the only work, at this time, which can in any degree satisfy the desire of information which is everywhere felt.*

Art. III.—PROGRESS OF AMERICAN COMMERCE, AGRICULTURE AND MANUFACTURES, No. 1.

INFLUENCES OF THE CREDIT SYSTEM—EXPLOSIONS OF 1833-7—SALES OF PUBLIC LANDS—COTTON CROPS—CONSUMPTION OF COTTON—PRICES OF FLOUR FOR TWENTY-FIVE YEARS—COTTON MANUFACTURES—FOREIGN COTTONS—TRADE IN BREADSTUFFS—BANKING SYSTEM AND BANKS OF THE UNITED STATES—BANKS IN THE VALLEY OF THE MISSISSIPPI—IMPORTATIONS OF SPECIE—COINAGE OF THE UNITED STATES—EXCHANGES—EUROPEAN CROPS—EXPORTS OF GREAT BRITAIN—REVENUE OF THE UNITED STATES—WAREHOUSING SYSTEM—MEXICAN WAR.

The position of the country commercially is, at this moment, one of soundness, and promises a season of greater and more lasting prosperity than perhaps any which the commercial world has heretofore witnessed. This arises from the fact that the industrial products of the country, taken as a whole, are more abundant than ever before, and a combination of circumstances has conspired to furnish a profitable market for them. The producers are less in debt

* The reader for other interesting materials upon the Valley of the Mississippi, will refer to the past numbers of the Review, particularly the number for May, 1847, entitled "The Mississippi, its Sources, Mouth and Valley." See also Com. Rev. Vol. I. p. 51; II. p. 145; I. p. 251; II. p. 177; III. pp. 115, 235, 352, 430, 224.

than formerly, and, therefore, the greater portion of the proceeds of the sales forms a positive addition to the capital, not only of the whole country, but of its several localities. The South-west and West, in particular, are being benefited by the progress of affairs, which contrasts strongly with that of the few years which led to the explosion of 1836-7, and subsequently of 1839. In those years, credit was the great agent of the apparent prosperity; and the greater was this appearance, the nearer was the approach of ruin. The settlement of the lands in the Valley of the Mississippi, in the years 1833-7, progressed very rapidly as well in the farm regions of Illinois and Missouri, as in the cotton sections of the more southerly States. The occupation of the rich lands became a mania, and young planters from the Atlantic States, migrating to the banks of the Mississippi, with blacks from their paternal estates, were supported in their enterprises by bank facilities, and the mania for banking was fed by the speculative spirit which sent eastern and northern capital to these regions for employment. From 1833 to 1837, \$80,321,000 was invested in bank capitals for the States of Mississippi, Louisiana, Arkansas, Florida, and Alabama; of this \$32,321,000 were State loans, and the remainder private means. All this, with its interest and profits to the planters, was to be earned out of future crops. While the capital was going, there the prosperity was great; as soon as it ceased to go, difficulties commenced: and when interest was to be paid, revulsions began, and the outcry for banking capital, as a remedy for pressure, was immense. By different means these difficulties have subsided. The land then entered for cultivation has yielded its rich produce in excess of indebtedness, and exchanges are in favor of the South-west and West. That is to say, the amount of sales is greater than that of their purchases. In order to trace the effect of land occupation upon the present and future crops of cotton, we may from the Land office Reports take a table of the sales of public lands annually in new cotton States, with the annual product of those States, and of the whole crop:

ACRES OF UNITED STATES LAND SOLD IN THE NEW COTTON STATES. CROP OF THOSE STATES, AND TOTAL UNITED STATES CROP.

	Alabama.	Mississippi.	Louisiana.	Arkansas.	Florida.	Total acres.	Crop bales.	Crop other States bales.	U. S. crop bales.
1833	461,319	1,291,494	86,441	41,859	11,970	1,816,083	859,310	811,118	1,670,428
1834	1,072,457	1,064,054	82,570	149,786	16,369	1,865,236	941,436	868,866	1,804,302
1835	1,997,907	2,901,181	325,955	630,027	48,364	5,523,534	790,823	486,408	1,354,838
1836	1,801,408	3,023,709	528,456	863,535	87,071	5,505,199	798,013	679,712	1,390,725
1837	361,773	354,354	330,232	391,919	108,330	1,547,608	818,660	505,970	1,423,530
1838	151,825	17,757	600,207	154,556	56,180	920,525	1,064,270	747,227	1,301,497
1848	86,794	18,174	189,326	119,610	25,902	461,304	1,538,904	626,898	1,177,940
1841	50,705	31,635	65,111	54,860	6,330	223,699	1,321,334	608,411	1,424,945
1842	118,227	43,868	45,360	24,391	5,563	208,077	1,160,269	628,121	1,483,890
1843	178,229	34,900	108,968	47,622	8,316	371,654	1,708,048	675,227	2,378,576
1844	84,164	24,438	98,319	55,124	14,714	206,265	1,445,727	864,888	2,606,410
1845	77,286	26,322	66,821	36,240	20,663	201,251	1,626,015	759,480	2,304,593
1846, 9 months	42,644	97,240	56,624	24,698	30,302	262,718	1,300,294	810,243	2,100,897

This table, in connection with what we have said in relation to bank capital, evolves a fact of vast importance to the planting interest. In the three years 1835 to 1838, over \$60,000,000 of capital was applied to the production of cotton mostly, bringing into culture over 12,000,000 acres of most prolific land, stimulating a great production.

and, of course, reducing the price, bringing ruin on the planters, as well as insolvency on the banks. Now it appears that the effect of this operation was, to cause production so far to outrun consumption as to reduce prices below what would yield a profit to Atlantic planters. These effects of large purchases of land apparently reached their *maximum* in 1843, when the new States produced 1,703,048 bales, and the total crop was larger than ever before, or than it has been since. The production of the Atlantic States in 1846 was nearly the same as in 1833, while that of the new States has been tripled, but it would appear that they have now reached their maximum yield, as have the Atlantic States under usual circumstances, and that the aggregate average production is below the consumption. In short, that the low prices growing out of the overaction of the years 1835-7 have passed away, and that henceforth, prices must advance, and depend more upon the will of the planter than as heretofore on that of the manufacturer. Many causes have doubtless contracted the cotton yield of late years; as the extension of sugar planting under the tariff of 1842, the appropriation of more land to food than formerly, and the emigration to Texas. The supplies from Texas will, in all probability, not progress as fast as the European consumption of cotton: as, for instance, in the German Customs Union, the consumption of raw cotton in the five years ending with 1841, was 22,509,100 pounds; and in the year 1845, 49,937,275 pounds, an increase of 27,328,175 pounds, equal to 69,000 bales in four years.

At a recent session of the Prussian Diet, a member called for a protection on linens because of the depressed state of that trade: this was opposed, and the decay of the linen trade shown to grow out of the increase in the use of cottons. From these general data, it results that the cotton culture must be profitable in the years of largest supply; and when the crop is short, the prices rise to a level that will realize for the small quantity as much money as for the usual crop.

The consumption of cotton in England has been reduced this year by the condition of the food market, but not to an extent equal to the diminished supply. The position of the market for the three leading points of London, Glasgow, and Liverpool, is as follows:

	1845.	1846.	1847.
	Bales.	Bales.	Bales.
Stock, January 1st, - - - -	897,060	1,055,370	545,790
Importation, Jan. 1 to June 30,	1,238,206	742,839	701,967
Supply, - - - - -	2,135,266	1,798,109	1,247,757
Export, - - - - -	60,300	91,800	67,200
Net supply, - - - - -	2,074,966	1,706,309	1,180,557
Stock, June 30, - - - - -	1,244,700	930,800	569,900
Consumed, - - - - -	830,266	775,509	610,657

The consumption was diminished, it appears, 184,852 bales for the six months, and the stock decreased 361,900 bales. A continuance of this process will exhaust the stock in eight months. While this large diminution has been going on in the raw material, the exports do not appear materially to have decreased, showing that the decline

took place in home consumption, by reason of the high price in food. The exports of cotton goods from Great Britain for the first six months of these years have been as follows :

EXPORTS OF COTTON GOODS FROM GREAT BRITAIN FOR SIX MONTHS, ENDING JUNE 30.

	Yarns. lbs.	Plain Cotton. Yards.	Printed and Dyed. Yards.	Total. Yards.	Total. Value.
1844	55,044,134	276,722,671	152,080,368	428,803,039	.....
1845	54,692,551	300,638,150	153,338,502	453,976,650	£10,289,878
1846	64,159,568	291,921,039	128,087,137	420,008,176	10,426,227
1847	48,013,703	268,583,824	147,118,702	415,702,526	9,820,772

The decline in the export of yarns has been to the north of Europe, and grows out of the depression in business there, arising from the dearness of bread. The increase in the export of printed goods arises entirely from the demand for the U. States and Brazils, as follows :

	EXPORTS—PLAIN.			EXPORTS—DYED.		
	To U. States. Yards.	To Brazils. Yards.	Total. Yards.	To U. States. Yards.	To Brazils. Yards.	Total. Yards.
1846	6,113,023	29,891,632	291,921,039	6,359,608	18,664,960	128,087,137
1847	18,569,183	42,184,678	268,583,824	18,872,100	30,190,240	147,118,702
Increase,	12,456,160	12,303,046		12,512,492	11,525,280	19,031,565
Decrease,	- - - -	- - - -	23,337,215			

The decrease in the export of plain cottons is near 50,000,000 yards, or near 17 per cent., to all places except the U. States and Brazils. There is also a diminished export of dyed goods, but to a lesser extent, and compensated for by the U. States' and Brazils' trade. This trade has resulted almost directly from the large importation of sugar and coffee, and of U. States breadstuffs. When the U. States spring trade opened, and orders reached Lancashire for goods, an increased animation was perceptible. The number of hands out of work at the end of May was 12,167, and 6,628 on short time ; at the end of June there were 8,671 out of work, and 5,021 on short time. The new factory bill, reducing the hours of labor, has come into operation. The great feature of the market appears to have been, however, that the prices of goods have not advanced with that of raw cotton, consequently there was a loss in manufacturing. At the latest dates, however, it began to be apprehended that the next crop will not exceed the last, and some advance in goods was obtained. It had been hoped that the high prices of cotton would enhance the supplies from Brazils, Egypt, and India, but this anticipation was not realized, showing the utter dependence upon the U. States supplies. Should the English harvest, under these circumstances, prove such as materially to reduce the price of food, in the face of a U. States crop, which may not exceed that just delivered, say 1,800,000 bales, the price of cotton may run very high.

The condition of the north-eastern States is somewhat similar to that of the new cotton States, inasmuch as that their rapid settlement, a few years since, served so to augment the quantities of farm produce, as to reduce the price to a level that would not pay for transportation ; by which means, the stocks accumulating in the country were very large, and far beyond the highest estimates—a fact that was clearly evinced when the demand from abroad raised prices so as

to make the most distant stocks available. In June and July 1846, prices of breadstuffs were lower in the United States than perhaps ever before known, and had been so for some time. As an indication, we give the following table of prices in New York :

TABLE SHOWING THE PRICE OF GENESEE FLOUR IN THE CITY OF NEW YORK, ON THE FIRST WEDNESDAY IN EACH MONTH, FOR THE FOLLOWING YEARS :

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.
1830..	\$6 02½	\$6 87½	\$7 12½	\$7 00	\$7 12½	\$7 00	\$7 35	\$7 12½	\$6 50	\$6 87½	\$7 00	\$6 87½
1831..	6 25	6 00	6 12½	6 25	6 50	6 25	6 50	5 50	5 25	5 62½	5 62½	5 87½
1832..	5 25	5 87½	5 25	5 25	5 12½	5 12½	5 25	5 00	5 12	5 25	5 12½	5 12½
1833..	5 25	5 12½	5 25	5 87½	4 62½	4 87½	4 75	4 50	4 62	4 87½	6 12½	5 12½
1834..	5 12½	6 00	5 50	5 75	5 12½	4 75	4 50	4 62½	4 62	4 75	5 25	5 62½
1835..	5 25	5 12½	5 00	4 75	4 62½	4 56½	4 62½	5 00	5 75	5 25	7 62½	7 87½
1836..	5 37½	6 50	6 12½	7 25	6 25	6 75	5 87½	5 87½	5 50	5 75	5 21½	5 18½
1837..	5 12½	4 75	4 62½	4 75	4 87½	4 87½	4 87½	5 00	5 62	5 87½	5 25	5 37½
1838..	5 75	6 12½	6 75	6 87½	6 00	5 50	5 37½	5 12½	5 25	5 62½	5 75	6 00
1839..	6 87½	6 50	5 87½	5 12½	5 37½	5 62½	5 75	6 00	5 87	5 87½	6 00	6 37½
1840..	6 00	5 75	5 50	5 75	5 62½	5 75	5 87½	5 62½	5 75	5 50	5 62½	5 62½
1841..	5 50	5 37½	5 12½	4 87½	4 75	4 81½	4 87½	6 00	5 25	5 25	5 12½	4 87½
1842..	5 12½	5 25	5 50	6 62½	6 75	6 12½	6 12½	6 50	5 75	6 87½	6 25	7 50
1843..	7 25	7 50	7 37	7 50	6 75	7 12½	7 12½	7 00	7 75	8 50	8 50	10 00
1844..	10 12½	11 00	11 25	10 75	9 00	9 50	9 75	9 50	9 62	9 25	8 50	9 00
1845..	8 75	8 25	8 00	8 25	7 50	7 75	7 25	7 12½	7 62	8 62½	8 50	8 87½
1846..	8 87½	8 87½	9 00	8 50	7 75	6 87½	6 31½	6 50	6 75	6 12½	6 87½	6 25
1847..	5 87½	6 57½	5 75	5 62½	5 12½	4 75	4 62½	5 00	5 00	4 87½	5 00	4 62½
1848..	4 83½	4 87½	4 75	4 62½	4 91½	5 00	5 62½	5 87½	6 50	6 25	6 00	6 87½
1849..	5 87½	6 43½	6 12½	6 25	5 87½	6 12½	5 39½	5 91½	4 93	4 50	4 25	4 87½
1850..	4 56½	4 87½	5 75	5 62½	5 00	5 12½	5 87½	5 00	4 81	5 56½	4 75	4 62½
1851..	4 62½	4 81½	4 93½	4 50½	4 62½	4 62½	4 31½	4 31½	4 14	4 37½	4 87½	4 66½
1852..	4 62½	4 84½	4 81½	4 75	4 62½	4 50	4 6 ½	4 31½	4 75	4 87½	6 25	6 87½
1853..	5 75	5 62½	5 50	5 43½	5 68½	4 81½	4 12½	4 12½	4 18	5 62½	6 00	5 31½
1854..	6 50	6 87½	7 12½	7 62½	7 25	6 50	6 50	5 62½				

This table shows that flour, as an index to other provisions and farm produce, is lower in the Atlantic cities in the summer months than at other seasons of the year for many seasons ; and that throughout the three years 1844-5-6, the prices were lower than in any of the preceding 20 years. It is always the effect of low prices to discourage production, and of high prices to stimulate greater industry ; consequently receipts were not large at the seaports for the first four months of 1846, and it was reasonable to suppose that no great exertions had been made to produce large quantities. At the latter end of September, 1846, a foreign demand sprang up which caused the prices to advance month by month, and which has maintained them at rates higher for the first seven months of 1847 than for any period since 1837. The quantities shipped from the United States to Great Britain and Ireland, from the first September, 1846, to August: first, 1847, as compared with quantities exported for the fiscal year ending July 1846, are as follows :

BREADSTUFFS EXPORTED FROM THE UNITED STATES.

	1846.			1847.		
	To G. B.	Total.	Value.	To Gr. Britain & Ireland.	Total.	Value.
Flour,	1,015,244	2,289,476	\$11,668,669	2,773,421		\$17,827,236
Corn meal,	50,164	298,790	945,081	795,583		3,069,332
Wheat,	984,398	1,613,795	1,681,975	3,095,698		3,869,628
Corn,	1,192,680	1,826,068	1,186,663	15,496,275		12,397,020
Rye,				77,552		62,049
Oats,				435,423		217,711
Barley,	142,694	638,221	114,792	271,103		149,109
Total Value,	- - - - -	- - - - -	- - - - -	\$15,497,180		\$37,606,095
Add Freights,	- - - - -	- - - - -	- - - - -	2,313,654		7,913,016
Total				\$17,810,834		\$45,519,111

These figures for 1847 comprehend the shipments to Great Britain only, and the value is fixed at the average market price at the place of shipment, and the freights at average rates. It will be remembered, however, the produce realized in sales abroad a much larger sum than its export value here given. This export value however, independent of freight, represents the increased sales of the farming interest. The amount however is to be swollen by the increased price caused by the foreign demand, paid by the commercial and manufacturing consumers on what they purchase. This will swell the credits of the agricultural States to near \$50,000,000 more than last year. This is represented by an amount of internal bills drawn against these credits; and as the purchases of goods have not kept pace with these enhanced profits, the exchanges have everywhere been low and steady, and for a longer time than usual in favor of New Orleans—the *pivot* of Eastern and Western exchanges—and against the Atlantic States. Instead of having *borrowed* \$50,000,000 as in former years, the West and South have *earned* it this.

In immediate connection with this subject, however, is the state of banking affairs; a few years since it was the fashion to suppose that there could be no *exports* of produce without large banking facilities. The following table from official sources, shows the condition of banks throughout the Union Jan. 1st, 1840, and near the 1st Jan. last:

BANKS OF THE UNITED STATES.

	Jan. 1840.				1847.	
	Liens.	Circulation.	Specie.	Loans.	Circulation.	Specie.
Maine,	\$5,901,610	\$1,224,658	\$195,699	\$5,269,006	\$3,241,846	\$262,237
N. Hampshire,	4,524,626	1,439,519	179,754	3,015,139	1,375,965	126,679
Vermont,	2,888,812	1,966,812	129,319	2,449,678	1,559,832	69,206
Massachusetts,	44,967,749	7,875,322	1,838,272	51,396,114	14,501,914	3,054,755
Rhode Island,	12,121,291	1,630,047	428,762	14,154,267	3,534,309	280,158
Connecticut,	10,428,630	2,325,569	499,032	12,781,857	4,437,631	462,165
New York,	68,057,067	14,220,304	6,990,529	75,237,632	22,268,522	8,048,384
New Jersey,	4,933,780	1,415,708	414,807	6,170,469	2,553,182	568,790
Pennsylvania,	71,646,434	16,034,497	4,267,676	31,897,359	11,230,092	4,000,000
Maryland,	13,593,642	3,079,241	1,319,559	12,542,388	2,868,451	2,156,049
Delaware,	1,488,269	770,487	117,500	1,494,629	578,974	116,073
Virginia,	15,596,776	6,707,701	1,889,568	15,348,483	6,969,819	2,437,591
N. Carolina,	5,047,528	2,246,181	586,628	5,043,842	3,086,060	1,339,928
S. Carolina,	18,347,002	4,439,404	1,847,498	15,640,224	4,429,527	966,012
Georgia,	14,439,752	3,017,348	1,424,333	5,549,232	2,471,264	1,104,235
Alabama,	18,336,007	3,512,851	1,200,607	2,194,916	1,445,906	1,165,272
Louisiana,	45,841,389	6,998,704	3,397,379	22,581,640	3,549,763	6,558,712
Kentucky,	10,522,464	3,940,333	1,261,500	10,249,519	5,710,994	2,617,955
Tennessee,	10,784,409	2,095,157	931,907	9,945,280	4,623,323	1,383,979
Missouri,	2,077,841	410,740	562,902	2,449,343	1,743,220	1,554,264
Indiana,	4,581,486	2,985,370	1,021,490	3,596,391	3,336,533	1,003,647
Ohio,	13,414,067	4,607,127	1,752,446	10,936,661	7,281,029	2,026,551
Michigan,	2,152,954	261,296	42,784	733,389	187,898	76,996
Florida,	5,236,293	519,290	46,188	none.	-	-
Arkansas,	3,956,636	1,139,120	227,967	"	-	-
Mississippi,	48,333,726	15,171,639	867,977	"	-	-
Illinois,	5,930,258	3,724,092	756,964	"	-	-
Wisconsin,	133,670	109,185	41,397	"	-	-

Total, - - - 465,384,220 111,907,822 35,041,114 320,603,330 111,967,779 41,474,637

It was thought that if wheat would grow without the aid of bank paper, it could not be sold without its aid. The commerce of New Or-

leans for the last few years is a practical refutation of the notion, Since banking in the Valley of the Mississippi has comparatively perished, the quantity of produce seeking New Orleans has advanced in an immense ratio. The effect of bank facilities is not to aid the sales of produce, but to enhance the purchase of goods. It is the facilities given to storekeepers to enable them to buy on credit and sell on time, waiting until "next crop," that produces revulsions.

The loans and circulation of the New England States, it will be observed, have increased considerably, particularly those of Massachusetts. The stimulus given to manufacturing movements by the tariff of 1842, called for more paper in that section, and the result is seen in the tables; a similar influence prevailed in New York, aided by the operation of the new banking law. The circulation of New England and New York was as follows:

	New England & New York.	All other States.	Total.
1840,	\$30,673,551	\$81,277,978	\$111,951,529
1847,	49,920,038	62,067,744	111,987,782
Increase,	\$19,246,487		
Decrease,	- - - - -	\$19,160,514	



Notwithstanding the increased commerce of the West of the Union, the circulation has greatly diminished, and at no point is the great change so visible as at New Orleans. The bank loans on the Valley were, it appears, as follows:

BANK LOANS IN THE VALLEY OF THE MISSISSIPPI.

	1840.	1847.	Increase.	Decrease.
Louisiana,	\$45,841,369	\$22,561,640	- - -	\$23,279,729
Kentucky,	10,522,464	10,249,519	- - -	272,945
Tennessee,	10,784,409	9,945,290	- - -	839,129
Missouri,	2,077,841	2,449,343	\$371,502	- - -
Mississippi,	48,333,728	none.	- - -	48,333,728
Arkansas,	3,956,636	"	- - -	3,956,636
Illinois,	5,930,258	"	- - -	5,930,258
Indiana,	4,581,486	3,596,391	- - -	985,095
Ohio,	13,414,087	10,936,661	- - -	2,477,426
Total,	\$145,442,298	\$59,758,834		\$85,683,464

Notwithstanding this large decrease in bank facilities, the value of produce delivered at New Orleans and from the New York canals at tide water, has been as follows:

	1841-2.	1842-3.	1843-4.	1844-5.	1845-6.
Delivered from N. Y. Canals,	\$37,225,322	22,751,013	28,453,408	34,183,167	51,105,256
Delivered at N. Orleans,	45,716,045	53,728,054	60,094,716	57,199,122	77,193,464
Total,	\$72,941,367	76,479,067	88,551,124	91,382,289	128,298,720

The banking of the Western States has fallen off two-thirds, and their exports have doubled. The increase at New Orleans, comparatively without banking aid, was \$32,000,000, and down the Erie canal \$24,000,000. The values for the present year will be immensely larger. It is obvious that a large and increasing trade like this must earn capital, and as we have seen, a sum equal to \$50,000,000 in the rise in farm produce alone, has been transferred to those States. The favorable state of the foreign exchanges growing out of these exports, has brought very considerable sums in specie into the country, which

following the ownership of the produce, has passed into use, supplying the vacuum which the failure of rotten banks created in the circulation. The operations of the Federal Government have latterly tended to facilitate this result. It is a maxim of the laws of trade that where an article is wanted, it will find its way in spite of all opposition. Any one that looks upon the table of banking operations will readily understand that almost the first want in the Valley of the Mississippi after the revulsion had swept away the banks and their paper, was a currency. Banks did not exist—specie was requisite. The want of a currency uniformly makes itself felt in the low prices of goods, which is another mode of expressing a high price for coin. Hence the returns for the large exports sold abroad naturally come in specie as the best remittance. As however foreign coins are of little value as a currency, the importation does not affect the circulation unless they pass through the mint into general channels of trade. The amount of importation has been for several years as follows :

IMPORTS OF PRECIOUS METALS INTO THE UNITED STATES.

	Bullion.		Coin.		Total.	United States Coinage.	Product U. S. Mines.
	Gold.	Silver.	Gold.	Silver.			
1840	277,127	439,431	2,812,030	5,323,222	8,872,813	3,426,632	426,185
1841	137,749	274,225	1,131,700	3,444,950	4,988,633	2,240,321	542,117
1842	55,355	39,458	700,920	3,293,264	4,087,016	4,190,754	777,097
1843	100,835	142,199	16,965,602	5,111,699	22,320,335	11,967,831	1,045,445
1844	83,150	208,693	1,510,151	4,008,431	5,810,428	7,687,767	967,200
1845	66,003	41,275	752,747	3,210,117	1,070,432	5,668,595	1,008,327
1846	14,150	33,579	896,263	2,833,740	1,777,732	6,633,965	1,113,357
1847	Estimated,	- - -	- - -	- - -	25,000,000	8,000,000*	- - -

Total, 731,479 1,208,833 24,769,425 27,227,432 73,927,409 49,815,695 5,879,728

The coinage of the precious metals was a matter of difficulty until the present year, inasmuch as that the mint is at Philadelphia, while the chief arrivals of coins are at Boston and New York. As all that arrives was the property of merchants, and fulfilled their object when deposited in banks, there was no incentive to incur the expense and delay of sending it to the mint. In January, 1847, the Independent Treasury came into operation, and a large portion of the specie that arrives passes into the hands of the government for duties. The Secretary has promptly caused to be transferred all the foreign coin so received to the mint; hence the large coinage of the first six months of 1847. The United States mines now average more than one million per annum, and are augmenting their yield. By these means the channels of circulation are becoming filled with American coin, affording a broader and safer basis for mercantile credits than has hitherto been presented. The whole coinage of the U. S. has been as follows :

GOLD AND SILVER COINAGE OF THE UNITED STATES MINTS.

	Charlotte, N. C.	Dahlonega, Ga.	New Orleans.	Philadelphia.	Total.
1793 to 1837	- - -	- - -	- - -	72,065,530	72,065,530
1838 " 1841	507,025	517,990	1,859,693	10,429,664	72,065,530
1842 - - -	174,508	309,647	1,295,750	2,426,351	4,190,754
1843 - - -	273,064	570,000	4,568,900	6,530,043	11,940,187
1844 - - -	147,210	488,600	4,208,500	2,843,457	7,687,767
1845 - - -	- - -	501,795	1,750,000	3,416,800	5,668,595
1846 - - -	76,965	449,727	2,483,800	3,623,443	6,633,965
Total, - - -	1,177,772	2,057,839	16,165,743	101,355,288	120,991,170

* Coinage for six months, and for July at New Orleans it was 22,000,000

Of this \$120,921,170 here coined, \$110,000,000 has been imported into the country, and the gold \$50,000,000, mostly from England. In the year 1843, \$15,000,000 gold, was brought from England, and this year there has been \$20,000,000 derived from the same source, with prospects of a further quantity.

It is obvious that the state of exchanges for this coming year must depend upon the state of the English money market; and the indication is that this will by no means be so easy as last year. The large railroad expenditures have promoted a great consumption of England's available capital, viz. stocks of produce, raw materials, and food; she has now a less amount of these on hand than ever before at the commencement of a new business year, while her stock of bullion is £7,000,000 less than in September, 1846. At the beginning of June she stood in relation to grain in warehouse and bullion in bank as follows:

	Wheat.	Barley.	Oats.	Flour.	Total of all grain.	Bullion in Bk.
June 5, 1846 . .	1,476,922	106,784	175,653	371,251	2,226,710	15,337,736
" 16, 1847 . .	10,780	1,012	3,919	8,703	27,694	10,511,597
	1,466,142	105,772	171,704	362,543	2,199,016	4,826,129

England, in common with Western Europe, was very short of food last year, and each imported the following quantities:

ENGLAND.		FRANCE.	
June 5, to Jan. 5 . .	3,265,664 <small>qrs.</small>	July 1 to Jan. 1 . .	2,542,229 <small>hectolitres.</small>
Jan. 5 to June 5 . .	3,426,825	Jan. 1 to July 1 . .	6,291,055
Total	6,692,709 <small>qrs.</small>		8,833,284 <small>hec.</small>
" in bushels	53,541,672		25,174,860

Thus far in the present year the crops promise well, but France, Belgium and England continue corn free of duty, and they have imported in the first six months of 1847 as follows:

England, Jan. 5 to June 5	qrs. 3,426,825	in bushels. 27,414,600
France, " 5 to July 1	hec. 6,291,055	17,829,512
Belgium, " 1 " 1	kil. 54,702,528	2,017,065
Total		bush. 47,261,197

As the season has advanced Belgium has bought less or about two-thirds of the quantity she took in the same time last year. The chances are that under the best circumstances England will want as much foreign food as she did last year. Her average prices, July 10, as compared with 1846, were as follows:

	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.	Flour.
1846	52.3	27.5	23.7	33.1	36.11	34.7	24.6
1847	82.3	48.8	31.11	61.9	53.0	55.10	53.0

No matter whence England buys her supplies, she must pay for them, and her ability to pay for a quantity, in any degree proportioned to that consumed by her last year, is to be doubted. The quantity imported added to the stock on hand at the commencement of the year reached near 9,000,000 quarters of grain of all kinds, worth near £27,000,000 or \$120,000,000; while the large consumption of foreign

diminished, and the export trade is languishing. The value of the leading manufactures exported in the five months ending June 5, was as follows:—

EXPORTS FROM GREAT BRITAIN JAN. 5 TO JUNE 5.

	1845.	1846.	1847.
Cottons	£10,289,868	10,426,227	9,820,772
Linen	1,750,516	1,510,837	1,495,636
Silks	297,712	349,433	404,502
Woolens	3,464,086	2,722,443	3,110,568
All others.	5,297,528	5,610,904	5,983,894
Total	£21,099,710	20,619,844	20,815,372

To increase the exports of manufactured goods, larger importations of raw materials will be necessary, and the sales to Europe are small. The chief support of the manufacturing markets during the past spring has been the demand for goods from the United States and Brazils. The influx of coin into this country had naturally stimulated an increased demand for goods, which began to take effect in May, and this will increase if the exports of produce to England continues. The European demand for manufactures, on the other hand, was injured by the high prices of food throughout the continent. The volume of the currency in western Europe was greatly depleted through the same causes that drew so largely upon England, and as prices of food are falling in France and Belgium, while those of England remain high, with adverse exchanges, the prospect is that a drain of specie for Europe will take place to an extent that may produce convulsion in England. It is obvious that any severe money pressure in Great Britain must powerfully affect prices and check the advance in produce, while it will accelerate the exports of manufactures to this country, under which operation the federal revenues may reasonably be expected to increase. The following is a quarterly statement of the revenue for the last year:

UNITED STATES REVENUE, 1847.

	Sept. 30.	Dec. 31.	March 31.	June 30.	Total.
Customs	6,152,000	3,645,965	6,300,000	7,065,000	23,162,965
Lands	640,000	399,545	240,000	1,053,650	2,333,195
Miscell.	17,000	16,000	17,000	13,500	63,500
Loans	1,953,953	7,359,750	7,510,950	12,272,900	29,097,553
	\$8,762,953	11,421,260	14,067,950	20,405,050	\$54,657,213

The land revenues have greatly increased under the stimulus given to agriculture by the high prices of farm produce. The custom revenues have fallen short of the estimates of the Secretary for the year, which were \$27,835,731, or \$4,672,766 more than the actual returns as above. This is to be reduced, however, by some \$1,500,000 due on goods imported within the year and remaining in warehouse. The operations of the warehouse at the port of New York have been as follows:

UNITED STATES BONDED WAREHOUSE, PORT OF NEW YORK.

	Bonded.	Duties.	Withdrawn.	Duties.	On hand.	Duties.
August to Jan.	4,723,709	1,421,957	3,522,793	1,072,508	1,210,916	349,449
Jan. to April	1,398,829	426,923	830,865	240,028	567,964	186,905
April to June 30	1,500,000	520,000	900,000	300,000	600,000	280,000

There is here \$800,000 duties accrued during the year, which were not available to the treasury, and reduced the receipts by so much below the estimates. The main reason for the customs being so small has been what we have above referred to, viz. the want of currency at the West, which has caused specie to be a better remittance than goods, notwithstanding the lower duties and the lower prices of exchange, which have averaged four per cent. below par, and in consequence have been so much in favor of the importer of goods. The average duties collected on the dutiable imports has been 26 per cent. against 31 per cent. last year, a reduction of 5 per cent. only—the lower price of exchange has been four per cent., making really a difference of 9 per cent. in favor of the importation of goods, yet from various causes the markets have been so sluggish that specie has been the best remittance. As we have seen above, however, specie is likely to become dear in England and cheap in the United States, and the fact will be shown in lower prices for goods there, and higher rates, inducing larger imports and swelling the revenues.

The continuance of the Mexican war has caused a severe drain upon the specie in the country, but it is probable that some arrangement may be entered into with the English mining companies by which the metals they produce may be turned to the use of the army. The silver mine at Mexico is mostly on English account, and transmitted at great risk and expense, paying a government tax, to the coast, whence it is shipped to England. In England it is not money nor a legal tender; but mere merchandise sold at 4s. 11½d. per ounce, mostly for the French market, where it is the national standard. Instead of going through all this process, it is palpably to the advantage of all parties to exchange it in Mexico for United States government bills. These latter may at New Orleans be turned into sterling bills at lower rates, and become money on their arrival in England. By such an operation the army would amply be supplied with specie without drawing a dollar from the United States. Unless some such operation can be entered into, the future will not promise well for the continuance of an easy money market, inasmuch as that there is but little prospect of peace, and the public mind seems settling down to the necessity of a permanent occupation of the country, if not as a territory of the United States, at least with a force sufficient to sustain any government that is disposed to be peaceable, and to draw the expense from Mexico.

ART. IV.—THE TRUE FUNCTIONS OF GOVERNMENT.

SYSTEMS OF LEGISLATION—INCORPORATIONS—MONOPOLIES—RELATIONS BETWEEN THE GOVERNMENT AND THE GOVERNED—ABUSES OF POWER—FAVORITISM AND PRIVILEGED CLASSES—THE PRICE OF LIBERTY AND THE DUTY OF AMERICANS.

ENJOYING, as we do, in a higher degree, perhaps, than any other people, political, social, and religious freedom, it is fit that we should frequently recur to the principles or fundamental laws which secure these inestimable privileges to us.

In these United States we have practically declared that all political power is vested in, and derived from, the people—that the people have the inherent right to establish and regulate their own form and mode of government.

At the inception of our government these principles were regarded as fundamental; and the declaration of our independence assumes “that all men are created equal—that they are endowed by their Creator with certain inalienable rights—that among these are life, liberty, and the pursuit of happiness; and that to secure these rights governments are instituted among men, deriving their just powers from the consent of the governed.”

During the seventy years now past since these great principles of social and political government were proclaimed to the world, what discoveries have the people of the United States made in the progress and maturity of legislative government? What have we done toward the establishment of wise and just laws, and in the maintenance of their stability? Is the American legislator grounded on any true philosophy? Do we not enact laws, and repeal them—and condemn to-day what we sanctioned yesterday?

These are questions of great importance to the American people, and concern our individual security, and the perpetuity of our government.

In what we are about to submit we shall endeavor to show that in all that relates to social, as well as political government, we should conform to *natural truth*.

If Infinite wisdom has ordained the employment of human means, human faculties for the attainment of happiness, and invited their activity by surrounding them with the means of employment and gratification—*human* wisdom has but one work to perform, and that is to reduce the means of happiness to possession according to the natural design. When we look to government as a means of security or guaranty for the enjoyment of life, liberty, and the pursuit of happiness, it behoves us to know *ourselves*, and our true relation to our fellow-men, and to external nature. In the pursuit of such an object all truth necessarily becomes natural truth—all rights natural rights—all wrongs natural wrongs. Our business should be to *perceive, discover*, not to create. We can create neither good nor evil. We cannot confer rights nor create wrongs. We can only sanction what is good and right, and forbid what is wrong, in conformity with natural laws.

“Those rights,” says Blackstone, the learned commentator upon the common law, “which God and nature have established, and therefore called natural rights, such as *life* and *liberty*, need not the aid of human laws to be more effectually invested in every man than they are. On the contrary, no human legislation has power to abridge or destroy them, unless the owner shall commit some act that amounts to a forfeiture.”

The language just quoted expresses, with great clearness, the view which we wish to present in these preliminary remarks, namely, that all just laws are merely declaratory of our natural rights—that just laws do not create, but enforce these rights—the right depending not upon the law, but the law upon the right.

And farther, we shall endeavor to maintain that all laws should be merely declaratory of natural rights and natural wrongs; and that whatever is indifferent to the laws of nature should be left unnoticed by human legislation; and that legislative tyranny begins wherever there is a departure from these simple rules of government.

It is a favorite doctrine, we are well aware, with most writers (and perhaps without exception) upon fundamental law, that every individual, substantially, bargains with society, upon becoming a member of it, to surrender a portion of his *natural rights*, for certain acquired rights or advantages which society or the laws of government may confer. This doctrine, it is true, has never been satisfactorily defined, at least not to our apprehension. But taking it in the broad sense in which it is laid down, and in view of what must follow, as a necessary consequence or result of such a principle, we must dissent, totally dissent from any such doctrine. It is, in our humble judgment, conceived in error, and in direct conflict with the true principles and philosophy of society and human government. It is, in fact, but one of many ingenious apologies of Tyranny for its usurpation of our natural rights. This doctrine admits the concession of some of our rights, but points us to society and its municipal laws, and the benefits which may accrue therefrom, as a remuneration for what we have granted away.

But is the exchange equal? Is the compensation we receive adequate for what we ceded away? Has not society and government, in carrying this doctrine into practice, all the advantage of the individual? Every proper benefit assumed to be conferred under this doctrine the individual possessed before, and had, and continues to have, notwithstanding society and its laws, a full and perfect right to their enjoyment. And we shall discover, when we properly consider this matter, that the supposed benefit which society and its laws promise and assume to confer, is but a *natural right* conferred by Divine wisdom and goodness, and which neither society nor government can take away. But tyranny and wrong can never be sustained without error and deception as their allies, and the doctrine which we have briefly noticed is one of their most subtle pretenses. Nature, in fact, confers all rights enjoyed by the human family; and we shall endeavor to show that the only business—the true use of laws should be to protect them.

This leads us to consider, more particularly, the *true function of government*, to which we shall, with the indulgence of our readers, address ourself.

Government emanates from the moral attributes of mankind. It is a thing of moral necessity, and its power and obligation are of a moral kind. There is a necessity for government, arising from the disparity which exists in the powers and faculties of the different individuals of the human family. If you select a single individual, distinguished for high intellectual gifts and strong moral emotions, and suppose him to have cultivated all the powers of his mind to a high degree, you would have a man who needs no human supervision, in order to perform toward his fellow-man all that the wisest and best government would ordain. Suppose, then, a nation to be

ments as himself, such a people would be "*a law unto themselves,*" needing no coercion from without, but each individual would be urged by the spontaneous impulses of his own nature to do right. Society presents us with many such characters.

"If men," says Vattel, "were always equally wise, just, and equitable, the law of nature would doubtless be sufficient for society. But ignorance, the illusions of self-love, and the violence of the passions, too often render these social laws ineffectual. Thus we see that all well-governed nations feel the necessity of positive laws." The regulations of government must be adapted to men as they are found to exist. A large share of the members composing the social body is constituted of persons in infancy and youth—periods in human life when the faculties are not perfected or matured. These must be regarded as defective characters, and their restraint is necessary for the safety of its members. Again, we find that the faculties of adult individuals vary indefinitely. All are alike, but unequal. Uniformity of kind but inequality of powers, seems to be the rule of nature in forming the characters and appointing the destiny of the various members of the human family. It is easy to perceive the disparity in the physical proportions and strength of different individuals. Their intellectual and moral powers vary no less, as is abundantly established by experience and observation throughout the world. The same divine hand which made "*one star to differ from another star in glory,*" has made one man to differ from another in the strength and activity of his various moral forces. All may rise upward in the intellectual and moral scale from their starting point; but he whom nature has favored most, may, and will retain his advantage to the end. Why this intellectual and moral diversity obtains among men it is not our business to inquire: we may as well ask why one is beautiful and another ugly—one weak, another strong—one tall, another short. It is so; let us not cavil at the fact, but conform to it. All may find satisfaction in the reflection that we are men, rather than animals—that we are created with ennobling attributes, rather than mere animal instincts. It is the part of wisdom to acquiesce in all the works of Divine goodness, and with the philosopher and poet agree that "*whatever is, is right,*" applying it as intended, doubtless, to the constitution of nature, and not to the moral actions of men.

It is the great precept of nature, "that men shall pursue their own true and substantial happiness." And a distinguished writer says "that the law of nature being coeval with mankind, and dictated by God himself, is of course superior in obligation to any other. It is binding over all the globe—in all countries and at all times: *no human laws are of any validity if contrary to this*—and such of them as are valid derive all their force and all their authority mediately or immediately from this original." A government which proceeds upon the true basis, will impose no restraint upon the individual, which his own moral perceptions do not sanction. Under such a government an individual should feel no restraint, but that of his own enlightened nature. The law of nature and the law of his own mind would present the same limits to his actions. In such case government would

and of humanity would be to him one and the same. All laws, therefore, should merely respond to the demands of humanity. They should emanate from the true wants and moral emotions of the human mind—they should prescribe such limits to human actions as man's proper nature prescribes to itself. They should sustain its great harmony, allay its fears, foster its benevolence, and perfect its justice—they should point the high road to happiness and close the gates of groveling instinct and base desire. They should prescribe *that* as the rule of human conduct, which the enlightened intellect and morality write down in the inner man—sanctioning what these sanction, and forbidding what these forbid.

Such laws would be in harmony with our superior and proper nature, and our statute book would become the enlightened expression of our will. Then truly could it be said that the citizen, "*although loyal, would still be free—obedient and yet independent.*"

We maintain, therefore, that there is a fundamental law—the law of our moral constitutions—to which the framework of government and all human legislation shall conform.

Written constitutions are too often regarded with as profound reverence as if they were the offspring of Divine inspiration—we are taught that they are sacred and inviolable—we are stimulated to bring all laws to their high test. To this we do not object, provided the constitutions we are called upon to observe and reverence, are modeled upon proper principles; but if they are founded in error they afford no correct test, and are not entitled to respect.

The several States of this Union acknowledged the principles we have stated, in the adoption of their several constitutions. They have admitted that the people are the source of all legitimate authority, and that government derives its powers only from the consent of the governed. They have declared that the true function of government is to secure the happiness of those living under its influence, and that when it fails to accomplish this object its authority ceases.

If laws are just and equitable, mankind would do as much violence to their own natures as to the laws, in neglecting or refusing to obey them. A government proceeding on these principles cannot and should not be called "*a necessary evil*"—it is a necessary good. A just government is as precious to all properly constituted minds, as a good name or virtue. Its laws would be regarded as written virtue; its aims those of truth and justice.

If the views we have presented are correct, it will follow as a natural consequence that the laws of a just government should be *general in their scope and application—equal and impartial to all.* This proposition may be illustrated and enforced, as well perhaps as in any other way, by stating it hypothetically.

It has been assumed in what has already been said, that the great precept of nature is, that we *shall pursue our true and substantial happiness.*

If this be the aim of all mankind (and truly we could wish for none other), and if our happiness depends upon the same rule of intellectual and moral action, then the rule prescribing or limiting that course of action should be the same for all men.

The enlightened world has long been standing at the principle

which is embodied in this simple proposition. It is this principle which impels patriots and statesmen everywhere to demand that the equality of all men shall be acknowledged and recognized by the laws which are enacted for their protection and government. Not the equality of men's physical, moral or intellectual powers—but equality of rights—equality of privileges—equality in the social and political compact.

And we here take occasion to remark, that the doctrine of human equality of which we have spoken is not always correctly understood (as the people of the United States have abundant cause to lament with shame and confusion) by those who assent to it. As we understand it, and as we wish others to understand it, legal equality exists and only exists, where the laws create no factitious greatness, confer no partial privileges and deny no natural rights. So that if the laws be adapted to human wants, and affect all alike, then all men are equally regarded, protected or punished, and legal equality is established. But notwithstanding legal equality may exist, the *inequalities* arising from the disparity of men's physical and moral constitutions will still exist. Some will still hold advantage over others; but this advantage will be attributable to the laws of their organization and not to human laws.

So far as human legislation goes, it should leave men as it found them—strong if they were strong before—and weak if they were weak. Legislation should guaranty the *freedom* of our nature, but not the powers of it. It should confer neither rights, nor privileges, nor powers, but should only protect all, and all alike. It is not the fault of legislation that some are still weak, as it is not the boast of the law that others are strong. No higher merit can be claimed for the most perfect system of laws, than that they have followed nature—that they have not and cannot confer the rights of men, but that they protect and defend them—that they do not bestow power and privileges to any man or class of men, but that they preserve free from destruction the proper exercise of men's faculties and ennobling attributes. In short, government has nothing to bestow upon anyone; it can only serve to protect men in what they have. We come into society and under the protection of government, with the capital which God has given us, and all we ask or have a right to ask is *free trade*. It is not the province of the state to provide capital for the business in which we choose to engage—nor to furnish credit when credit shall be either convenient or necessary. We need and only have the right to ask, *protection* in what we have, be it much or little.

Such should be the leading principles of legislation under every just government. A different rule would be an abuse of the law-making power, and in violation of the true functions of government. No special privilege can be conferred without a violation of the principle for which we contend. For every privilege conferred upon one, always implies a derogation from the rights of others. As well might the State assume to bestow honors, greatness, talents, upon an individual. But to do this government is powerless. It cannot thrust greatness nor brilliant achievements upon men. It can no more con-

making. We derive our natures from God, and until government can change our nature, it ought not to mock us by changing our names or condition. Neither privileges nor titles can be granted without violating the sanctity, the equity of rights, which it is the proper function of government to protect us in the enjoyment of.

General legislation is therefore the true course for every government to pursue. To show this more clearly we need only notice some of the evils of partial legislation—the granting of monopolies and exclusive privileges—which stand out so prominently in every State of this Union. Go to your libraries and observe the shelves, groaning under the ponderous volumes of legislative enactments. What is the mass of laws you there discover? Can it be possible, you inquire, that the general good of the people requires a huge volume of laws at each session of the legislature? Are the rights of the people so numerous and so complicated as to require so many laws for their protection? What is it that engrosses the time and talents of your representatives, and last, though not least, absorbs the public treasure?

What has caused so much doubt, distrust and uncertainty, respecting our municipal laws? What has caused the embittered and harassing conflicts, which require so many courts and so much labor to adjust?

Why are your court calendars loaded with cases, and your judges doomed to ceaseless toil, and oftentimes impugned by the selfishness of interest, or the stupid blindness of cupidity? Why is it that men, when about to engage in any laudable enterprise, move hesitatingly, and in doubt—staking perhaps both fame and fortune upon the opinion of legal advisers?

Open the volumes of *law-sheep* before you and the whole is explained—your inquiries are answered from the first page. You have before you volumes—ship-loads of partial legislation. A bank for one set of men—a railroad for another—a turnpike—insurance companies—a ferry—a church—musical societies—sewing company—burial associations, and thousands of incorporations known to this system of legislation.

When you have seen all this, are you not ready to exclaim, surely "*the world is governed too much?*" These are some of the evils of partial legislation. But let us look a little farther. What character of legislation occupies so large a portion of each session of your General Assembly? If you look to the published laws it will be found that nearly one half of them are laws for the adjustment and payment of the claims of private individuals against the State.

An individual renders service to the State; he has labored faithfully and well, and justly deserves fair and adequate compensation for the services he has performed. How is he to obtain it? He is driven to the necessity of petitioning to the legislature. He must explain to the satisfaction of that body that his claim is valid, at great cost—perhaps the expense nearly equals the claim. But this is not all; when he has established his claim by legal and abundant proof, his task is but half performed. He must yet induce, persuade the *Honorable the Representatives of the General Assembly*, to grant him the favor, the boon to allow his claim!

He does not succeed (if he is so fortunate as to succeed) upon the grounds of *legal right*. He does not succeed because he has shown from unquestionable proof that his claim is just; but his success is attributable to legislative favor. Payment has most graciously been granted to him by the representatives of the sovereign power of the State!!

Fortunate individual indeed; he has persuaded the legislature to acknowledge and *actually* pay a just claim. An acknowledgment in many cases gladdens the hearts of honest claimants, and is regarded as tantamount to half payment at least; but when a claim is actually allowed and paid, the joy is unspeakable, and forthwith the great justice, the magnanimity of the legislature is heralded to the world. A just demand has been acknowledged and paid, and that too by a sovereign State. What an example to the nations of the earth!! What emotions of pride and gratitude must pervade the hearts of the constituent members of the State, when it is known that it has consented—*condescended*, if you please—to be just!!!

This is not ironical exaggeration merely, it is unfortunately too true.

Go to the halls of Congress, there witness the evils, the corrupting influences of partial legislation. Witness the means—the demoralizing tricks and subterfuges—which are in the majority of cases resorted to in order to create an *interest* in favor of a particular claim or measure. Listen to the bickerings, the criminations and re-criminations growing out of these claims, sickening and disgusting in the extreme. Observe the delays, which in many cases are worse even than positive denial, and which are continued oftentimes through a series of years; and lastly, how many just claims are rudely and positively denied—and thus gross injustice is practised at the very fountain head of our laws.

Do you ask the origin of this system, and why it is necessary for the adjustment of private claims, that all the machinery of special legislation should be exerted, and special laws enacted?

It is because we follow an old maxim borrowed from the old world—perhaps from England—denying to the subject the right of suing the sovereign. Under the old system of government, where sovereignty is claimed by inheritance, the *king* is presumed to be incapable of denying the just claims of his subject. The maxim to which we refer is predicated upon the idea, that the subject need only present his claim, by humble petition, or on bended knees, to his sovereign, and the royal purse will at once unloose its strings. In other words, according to this notion, the King is very willing to be *dunned*, but will not be sued.

Now it may seem strange, but it is nevertheless true, “and pity it is 'tis true,” that the American people follow this delicate sentiment, and compel all claimants against the government to become *legislative duns*. Because a sovereign king may not or *will* not answer in a tribunal, which by legal fiction is supposed and regarded as his subservient creature—therefore a citizen of a republic—one of the constituent members of the body politic—shall not resort to a court of justice to establish his claim against the State. He must *petition* the legislature for redress, he is driven to the same petitioning

tices which obtain in such cases ; he becomes a *lobby* member—a hanger-on upon the skirts of members. He demeans himself in his own estimation, and in the eyes of the world. He enlightens the representatives of the people in regard to the merits of his claim, by his private conversations ; he regales them with his wit, and conciliates with feasts, wines, and other *creature comforts*. Thus the palates and stomachs of legislators become the avenues to justice between individuals and the State. The bold and managing claimant—one who can conciliate most successfully—possessing personal influence, may succeed, and obtain more perhaps than is his just due ; while the modest, probably more deserving claimant, possessing none of these natural advantages, gets less than is his due—or what is more probable, nothing at all.

Who does not see that this system, and the practices under it, are corrupt and wrong ? It is the offspring of institutions having no analogy to our own ; it cannot be justified on any principle. Is it not right, if the State is justly indebted to one of its citizens, that it should pay him ? If it does not owe, it should not pay or give anything. If the State is justly indebted to an individual and will not voluntarily pay, we can see no reason why an individual should not be allowed to sue, and upon recovery, the property of the State be subjected to the payment of its debts.

Ample authority is found to allow the State to sue its citizens in our courts. This is condescension perhaps on the part of the State, but why not condescend a little farther, and consent to be sued for a just debt ? There certainly can be no valid objection in determining and adjusting claims against the State, in the same manner in our courts as in the case of individuals, and upon the same legal principles.

This course would completely overthrow—annihilate—the *compensation* or *log-rolling* system of legislation now so prevalent. It would prevent the evils, delay, expense, vexation and injustice arising from special legislation ; and what is more, it would effectually prorogue the *third house*, or lobby, which is always so potent in giving direction to American legislation.

The remedy for the evils of which we have spoken, may be found in *general legislation*—laws which shall afford to every citizen the same privileges and advantage, and the same measure of redress. Let the State, like individuals, answer in our courts ; let the judicial tribunals determine all controversies, and do justice to all parties, whether individuals or the State.

There is no more difficulty in this course of legislation—in fact not half as much as in the present system of partial legislation. It is far less difficult, attended with less expense to the public treasury, and more just in its operation to provide general laws for the wants, security and protection of the community, than to enact a law for every particular case that may arise out of the multifarious business of men.

For example, why may not general laws be provided for the incorporation of towns, cities, manufacturing companies, insurance companies, banks, and various other incorporations where associated capital may be deemed essential to the successful prosecution of any

all concerned by well-defined general laws. In some of our sister States the experiment to a limited extent has been tried, and found fully to meet every just expectation.

As a subject prominent in the business affairs of life, especially as connected with mercantile enterprise, let us single out *banks*, or monied corporations. This subject will fully illustrate what may be said in regard to other chartered privileges. The subject of banks fills a large space in special legislation; a vast deal of legislative wisdom has been expended; the worst passions have oftentimes been excited; much valuable time has been devoted to them; the public treasury has become bankrupt by this course of legislation; and after all, the world is wicked enough to insinuate that these chartered institutions are not more honest and not more inclined to deal justly, than natural persons who have no charter behind which to retreat.

Now let us ask, why is it necessary to encounter these difficulties in reference to these incorporations? If a special charter can be safely granted to particular individuals, why may not a general law be enacted, prescribing the mode in which everybody can engage in the same business?* If the business of banking can be safely entrusted by a special charter to a given number of individuals, why may not all good citizens be entrusted with the same privilege? If the people—the community—are safe in one case, why would they not be safe in the other?

Do not misunderstand us; we are not advocating banking in any form, whether by general or special laws; nor are we advocating any principle which may facilitate the increase of chartered privileges. These are considerations and topics foreign to our present purpose. We are proceeding upon the assumption that banks and other incorporations are useful, expedient, and necessary to the public thrift and economy.

If any branch of business, banking or otherwise, which is fostered and prosecuted under a special charter, be a legitimate mode of making profit, then all men who have a desire to do so, have an equal right to engage in it. If it be improper, inexpedient to the public interests, or wrong, then it should be denied and prohibited to all alike.

In all these matters we contend that the course of legislation should be such as to affirm the principle, that whatsoever is right, expedient and proper, for one man or class of men, is right, expedient, and proper for all.

But, it may be objected, if banking, and other business in which associated capital is usually employed, are left free, under general laws, to all who might wish to engage in such business, that there might be an excess of it. This objection has no force, for every branch of business will correct all excesses in its natural course. Banking, or any other branch of business, would be pursued so long as it is profitable, so long as capitalists found it a safe and profitable investment. The laws of trade would control the whole subject and afford a complete answer to the objection.

What can we do for the advantage of merchants? said a well-wish-

* This system of incorporation by general law has been adopted in Louisiana, under the provisions of the new constitution.—*Ed.*

ing monarch of France, more than a century since, to one of the most sagacious merchants of that kingdom. "Let us alone, sire," was the laconic reply.

This reply is practical and full of wisdom. It expresses in few words the true philosophy. How much it is to be regretted that it is not more observed in practice. Yes, *let us alone*.

It is not our design, nor will the space of this paper allow more than a general statement of the propositions we wish to present. Arguments in their support could be urged to an indefinite extent, and objections which may appear on the surface, might be readily answered, if time would allow.

New systems and new theories should always be examined with scrutinizing care, before they are adopted. Theoretical speculations, whether pertaining to science or government, should always be subjected to the most rigid tests of truth, before they should be allowed a place in our judgments. New systems and novel theories (although in the sequel oftentimes result in mere shadows) frequently are the means of eliciting substantial truth. They oftentimes awaken inquiry and thought, and lead to investigations which result in the greatest benefit to mankind. They often lead to the discovery of truths which before were considered as hidden from the vision of men.

But we claim no novelty in the propositions we have asserted. The great principles we advocate had their origin coeval with truth itself. What we have endeavored to demonstrate does not rest upon mere theory, or upon idle or visionary speculation. We trust we have presented practical truths, which show the reality of what has been asserted.

In combating the errors pointed out, we wish to detract nothing from the intelligence or patriotism of those who follow and adhere to them. Error is powerless for evil, so long as truth is left free to combat it.

It is not strange that our ancestors, in preparing the frame-work of our political institutions, should have resorted for light and instruction to the systems of the old world. Nurtured as they were under English laws, it was natural that they should borrow much from them. Theirs indeed was a vast labor. Never so much was done by one generation for equality of rights and liberty as they accomplished. They gave us the germ of free institutions, which experience only could expand into full life and maturity. They erected a weighty frame-work, whose main pillars were worthy to support the great temple of Liberty. It is *our* privilege, as it is no less our duty, to perfect the great work, and to reject whatever experience shows to be out of harmony and in conflict with the main design of our political fabric and natural rights.

The American people are too apt, we fear, to forget in what political liberty consists; how frail its tenure, and how short its date.

We are too apt to revel in what we have for the time being, without taking the trouble to perpetuate the means of our enjoyment. *Vanity*, our national weakness, that is never cloyed with its feasts nor tired with its activity, rates high, too high, perhaps, the pride of our distinction as a free people, without regarding the perils which

We are too prone to consider our condition, not as a state of probation for the trial of our virtues, but the heaven where our indolence is to find rest, and our selfishness an everlasting reward. The American people, it is feared, are too prone to consider their political probation as ended, and that their republican constitution once fairly engrossed in parchment, is a bridge over chaos that may defy the discord of all the elements.

This syren song has sounded in our ears, like a voice saying to the tempestuous sea of liberty, "Thus far shalt thou go, and here shall thy proud waves be stayed."

It is the part of wisdom to consider well our true condition, and not forget the high trust reposed in us.

It is the part of wisdom to be ever watchful of the progress of our institutions, and not forget that "*eternal vigilance is the price of liberty.*"

Art. V.—RELATION OF DEBTOR IN LOUISIANA TOWARD HIS CREDITORS.*

CONFLICT OF INSOLVENT LAWS.

THESE conflicts, important as they are, are not, we fear, sufficiently consulted, if they are ever consulted at all, either by our State legislators, or by the legal advisers of persons who are obliged to take the benefit of the insolvent laws.

We shall, therefore, as much for the benefit of our law-makers as of debtors in general, try to point out, briefly, in what situation stands a debtor of Louisiana toward his creditors abroad, and of the other sister States after he has surrendered all his property, or after he has merely asked for and obtained a respite.

"It is not doubted," says Story, "that, in absence of any insolvent law of Congress on bankruptcy, the States may pass insolvent laws which discharge the person, or operate in the nature of the *cessio bonorum*; provided such laws do not discharge or intermeddle with the obligations of contracts, in operating upon them when they were made antecedently to the passage of such laws." The States may, therefore, pass insolvent laws to operate upon contracts which are made subsequently to their passage, as it has been settled by a majority of the Supreme Court of the United States.†

Another question is also understood to be finally at rest, to wit: that such State laws are constitutional only when they apply to contracts made within the State, and between citizens of that State; but that when made out of the State, or in the State with citizens of another State, or of a foreign country, the Constitution of the United States protects them from prospective as well as retrospective legislation.‡

* This paper was furnished us by Mr. Eyma, who has in progress, if not now finished for the press, a treatise likely to prove of very great value, under the title, "Inquiry into the Laws and Jurisprudence of Louisiana on Insolvency."

† 12 Wheaton's Rep., p. 213—Ogden vs. Saunders.

‡ 12 Wheaton's Rep., p. 358—Ogden vs. Saunders: 4 Wheaton's Rep., p. 209—

But if a creditor voluntarily makes himself a party to the proceedings under an insolvent law of a State which discharges the contract, he will be bound by his own act, and be deemed to have abandoned his extra-territorial immunity.*

It then results clearly that a debtor who has creditors either in other States of the Union, or anywhere else, and who surrenders his property to all his creditors, is not protected by the State laws from the prosecutions of creditors who are not residents of this State—the extra-territorial creditors having, in refusing to make themselves parties to their proceedings, the right to sue such debtor before the Federal Court, and to obtain judgment against him there, notwithstanding his surrender. Nay, such creditors could, prior to an act of Congress passed on the 28th of February 1839, imprison their debtor, even when the laws of the State in which he resided, and in which his surrender was made, had abolished imprisonment for debt.

Yet the proceedings of a creditor against his insolvent debtor in the Federal Court, cannot in any manner interfere with or disturb the proceedings of insolvency carried by such debtor before the State courts. In such cases, the creditor, by judgment of the Federal Court, cannot withdraw from the State creditors, nor attach the property surrendered under the State laws: he may only have his judgment recorded in the mortgage office, to bear on future property which may fall to the debtor, through some unexpected or unthought of event; but if he receives any dividend from the syndic, or makes himself, in any manner, a party to the proceedings, it is considered as if he had abandoned his extra-territorial immunity;† and then, even with his judgment, he can do no more than the State creditors with whom he has thus associated himself. We must confess that we have never yet seen such proceedings produce any good fruit: they prevent extra-territorial creditors from sharing with the others in the dividends, and warn the insolvent debtors of the danger of possessing property in their own name; they are, in consequence, ruinous to the extra-territorial creditors, and immoral for all.

Debtors who obtain a forced respite in our State courts, are yet in a worse situation than insolvents who have surrendered their property when they have creditors in other sister States or abroad. In the first hypothesis, we have shown that the property surrendered to all the creditors, could not be divested from them by any judgment of a Federal Court, no preference whatever being due to such decrees. But in the second hypothesis, that of respite, the debtor keeping in his possession all his property, the extra-territorial creditors may have a judgment obtained in a federal court, executed on the property which the majority of his creditors have left to his management. It is therefore clear that our law of respite is a *dead letter* whenever the respite debtor has, out of the State, even but one creditor who refuses to make himself a party to the proceedings. Respite, in this case, does not facilitate the debtor who has means, but cannot satisfy his debts at the moment, in obtaining a reasonable delay from his creditors; but it serves only to bind those who must abide to the laws of the State, in giving over them, at the same time,

* 3 Peters' Sup. Rep., p. 44—Clay vs. Smith.

† Clay vs. Smith. 3 Peters' Rep., p. 411.

an unjust advantage to extra-territorial creditors, even be they strangers.*

Unfortunately, this state of things exists in Louisiana, and makes every one regret that a uniform system of bankruptcy should be wanted in a country like this.

Should there be a good, reasonable, and permanent bankrupt law of Congress, it would "preserve harmony, promote justice, secure equality of rights and remedies among the creditors of all the States;" and aliens would not have a preference over our own people. Twice, since the adoption of the Constitution, a uniform system of bankruptcy has sheltered all the country; and twice has it been repealed before it had any fair trial. The last act principally served to ruin the more honest portion of the citizens, without leaving to its victims any time to take the benefit of it themselves. It seems that Congress, for the purpose of embarrassing the States, and of perpetrating the afflicting conflicts just spoken of by us, leave dormant the power invested in them by the Constitution.

Though we must in justice acknowledge, and we do acknowledge with much satisfaction, that Congress have undoubtedly progressed in the principle which we advocate, by suppressing *imprisonment for debt* in the States where the territorial laws have abolished that inhuman bondage, every good American approves of so solemn a protestation, by the legislators of this noble country, against what Story calls "a refinement of cruelty; an indulgence of private passions, which could hardly find apology in an unenlightened despotism." And it is not without the highest pride that we inscribe here, that *Louisiana* has abandoned that system of legislation, "so unjust, so unfeeling, and so utterly at war with all the rights and duties of a free government."

Art. VI.—THE MISSION OF AMERICA.

INFLUENCES OF THE AGE, IN LAW, RELIGION, COMMERCE AND THE ARTS.

HE who undertakes to speak upon this subject cannot indulge the hope of originality. If, in reviewing events so frequently the theme of writers and orators, one can trace consequences, or induce applications favorable to the age in which he lives, he will have effected all that is allowed to common minds. It is but rarely that nature produces an intellect capable of impressing its original judgments upon an entire age, and of identifying them with the history of a nation.

We may discover the course and effects of history in the conduct

* Some amendment to our laws on forced respite are therefore necessary to put the debtor's property out of the reach of the extra-territorial creditors. The property ought to be vested in the creditors by effect of law; but confided to the care of the respite-debtor, who should be considered as his own syndic, having power to sell when and as he should think proper, provided he should give to his creditors the amount of each of the terms agreed upon. This might be decreed in the judgment homologating the process-verbal of the meeting. Thus, the extra-territorial creditors would not, indirectly, annul the delay given to the debtor, nor seize the property left in his hands, and which should answer for all his debts.

of persons of various opinions who meet to discuss a subject of interest. Each comes with his preconceived views. This difference throws the mass into disorder. Individuals are irritable at opposition; and angry debates, accompanied with harsh criminations, ensue. When these subside, the contest, before considered useless, is seen to have done good. Opinions looked upon as the extremes of folly, have elicited information. Arguments supposed prolix and tiresome, have given opportunity for reflection. Replies, luminous with wit, under whose invectives we indignantly writhe, have quickened our sensibilities. When the storm is over we are prepared to admit, that amid all the confusion, all the controversy, each man has been benefited and instructed by the collision.

It is thus with the facts of history. We see the world occasionally agitated by violence, during which men's rights are openly wrested from them. In peace these same rights are swept away, while society rests in false security. At one time wars rage until every principle of human liberty is suppressed by vengeance and cruelty. At another, wary statesmen imperceptibly undermine the dike that holds back the encroaching flood of tyranny. But, notwithstanding, the truth continues to come onward. If in one age it but glimmers, like the light of a frail bark, tossed by the surges of the ocean, in the next it shows itself effulgent as the lamp that rears its head above the rocky coast. Change ever succeeds change for good. The darkness that involves one people but enables another to see more clearly. The wars of one generation become the peace of another; the barbarism of that nation the civilization of this; the tyranny of one age the liberty of one succeeding it: whatever the contest—however great the present curse—still, truth continues to expand and illuminate every avenue to virtue and knowledge.

In this view it becomes an interesting inquiry to consider the duty of men to the age in which they live. This duty is not confined to ourselves. It reaches far into the times beyond us; for, as we urge farther into that the improvements of the arts of this, in that proportion only are we entitled to demand that our history may be written; for what should deserve the name of history but the narration of the advancing steps of society in the practice of the nobler virtues, and the perfection of the more useful of the arts of life?

Let us, in connection with this proposition, contemplate the point which our ancestors had reached, when this fair country passed into our hands—glance at its condition now, and indulge in reflections as to how far it may be our duty to press forward its various destinies.

1. The history of Europe about the period of the discovery of the Mississippi, is intimately connected with the course of events gradually developed in this country. Thrown into commotion by every variety of revolution, the condition of England was that in which despotism, rebellion, fanaticism, and popular rights, each struggled for the mastery. The restoration of Charles the Second had, for a time, turned the eyes of men from the cloud, which, pregnant with moral and political calamity, rested on the horizon, ready to desolate the land. That event was a reaction, partly the result of fear, engendered by the fate of patriots of the times—partly the consequence of a

tomed to look upon a particular family with respect. Besides, a desire for repose prevailed over the discontents of the people, and they became affected with sympathy at the recollection of the melancholy fate of Charles the First. If one, animated by the spirit of Elliott, Hampden, and Pym, hesitated to throw himself into the current of popular love, setting toward monarchy, he was taken by force into the stream, and his whispers of prudence stifled amid the acclamations of the intemperate multitude, now drunk with loyalty. Under this condition of affairs the intelligence of the people retrograded, and their energies remained without development. To France they were tributary for the comforts of life, to which, upon the balance of trade, eight millions were annually paid. Neither manufactures nor commerce stimulated the people's industry, or excited their genius. The national character was lost in that frenzy of impiety and that wild revelry of licentiousness which seized upon the court. French counsels and French money moved the public affairs; and even he who wore the crown of Alfred, was himself the pensionary of a king of a nation whom the English have always held in aversion. As for the spirit of republicanism, it was soon to become extinguished for a time, in the blood of Sidney and Russell. Even education became subservient to the cause of tyranny. It is satisfactory to perceive that institutions of learning have, except in very rare instances, always been on the side of liberty. France, in three revolutions, was seen to pour forth her scholars to protect the cause of popular rights. But not so with the University of Oxford, at the time of which we speak. In direct reference to the death of Russell and Sidney, while the block was reeking with the blood of these illustrious patriots, that institution, in solemn convocation, declared that the principles for which they died—that civil authority is derived from the people—that government is a mutual compact between the sovereign and the subject—that the latter is discharged from his obligation if the former fail to perform his—that birthright gives no exclusive right to govern—were "damnable doctrines, impious principles, fitted to deprave the manners and corrupt the minds of men, promote seditions, overturn states, induce murder, and lead to atheism."

Yet, even amid all this gloom, truth sent forth its light, and the spirit of freedom was still advancing. The heroism which sustained the magnanimous Essex in determining to die, rather than by flight to stain the reputation of Russell, animated others. Shaftesbury had induced the colonizing of Carolina, and placed its government in the hands of firm republicans. There the victims of the cruelty of the Duke of York in Scotland, of Charles' despotism in England, and the Huguenots of France, fled for an asylum, and began to indulge, freely, those liberal sentiments with respect to religion and government which are now humanizing the world. The character of the nation was becoming more elevated. Learning, which had for years been confined to the perversion of texts of scripture to purposes of fanaticism, or to encourage the prostitution of political maxims, began to be devoted to the investigation of nature. Philosophy took up her abode in the academic grove. Political truth began to be understood. The distinction between governing according to the common *weal*, and by the common will, was no longer the jest of a false monarch, but a

well-recognized maxim of the constitution. Charles had supposed that the people had no idea of a tyrant but what was presented in a Sultan, sitting cross-legged, and ordering the bow-string to be used at pleasure; and thought it a trifling request to demand that he should be relieved of the authority of fellows who examined his money accounts, and held his ministers responsible. The time was now come when those who settled his colonies, at least, looked upon these powers as the strongest bulwarks of the people's liberties—the denial of their exercise the most odious of tyrannies. The Habeas Corpus Act had been carried in the House of Lords by a subterfuge, and the people were prepared for that revolution which was to render perpetual the principles of Magna Charta, and turn back the dangerous tide of kingly prerogative. All these political reforms tended to the improvement of men in other relations. The Royal Society had been established. Bacon had spoken truth, and Newton had discovered light; and even that University which had violated the chastity of letters was, within the same century, to revoke the edict with respect to the sentiments of Sidney and Russell, which she had once decreed should be perpetual, and confer honors upon the scholar, the vindicator of Sidney, who, on her public rostrum, amid the cheers of the assembled multitude apostrophized him thus :

“Lo, Sidney, bleeding on the block, his air, his mien,
 His voice, his hand, unshaken, firm, serene!
 Yet no diffuse harangue proclaimed aloud,
 To gain the plaudits of a wayward crowd—
 No specious feint, death's terrors to defy,
 Still death delaying, as afraid to die:
 But, sternly silent, down he bows to prove
 How firm, unperishing his public love.
 Unconquered patriot! formed by ancient lore,
 The love of ancient freedom to restore;
 Who nobly acted what he nobly thought,
 And sealed by death the lesson that he taught.”

In France, everything which contributed to render the nation illustrious, the government useful, the people's industry successful, was far in the advance. The age of Louis XIV. was ascending to the zenith. The Sully of the 17th century, the great Colbert, had the control of public affairs. The social and personal rights of men began to be considered as proper objects of government. After the disorders of preceding ages, society began to settle into system. The military establishment, so long the scourge of Europe, assumed a more quiet condition. Louis saw the folly of pouring out the blood of his people in the acquisition of territory, or in the cause of other sovereigns, and devoted this establishment to the strengthening of France at home. To him is the world indebted for the cautious maxim, of preparing in peace for just wars. To this end he founded schools, where the martial spirit was encouraged, discipline perfected, uniforms adopted, the bayonet, a weapon which improved the art of war, brought into use, and the science of fortification advanced. Not satisfied with these improvements, he instituted a corps of engineers, stored magazines with munitions, equipped thirty regiments of militia, and thus laid the foundation of that national guard, which was afterward to stand as the bulwark of the nation. He instituted the

order of St. Louis, as a reward for military achievements; and closed by a still nobler work, the Hospital of Invalids, where many thousands of wounded and aged soldiers found a comfortable asylum. Nor was the navy, as in the days of Mazarine, permitted to decline. Through the influence of Colbert it soon equaled that of England, and became superior to that of Spain. Arsenal's were built at Brest, Rochfort, Toulon, Dunkirk and Havre. In a few years, one hundred and eighty ships of the line, and numerous galleys, displayed the French standard in Toulon. Councils of marine for the instruction of seamen were established; and one hundred and sixty-six thousand men became familiar with the principles of navigation. Nor was the marine confined to unjust wars. Under the brave Renaud, mortars were first used in the fleet, and made subservient to the purpose of subduing that piratical nation, and giving liberty to thousands of Frenchmen. So powerful was the name of Louis the Grand, that even England was indebted to it for the freedom of her enslaved people. Siam's king, struck with the fame of so mighty a monarch, confined the trade, hitherto locked up within its borders, to the French, and even proposed to adopt their religion. The haughty Doge and proud Senators of Genoa, repaired to Versailles to do Louis homage; and England paid a higher tribute to France by encouraging thirteen hundred of her artificers to settle in her territory, and transfer there the industry and arts of her people.

It was amid this age of fanaticism and persecution in England, and of magnificence in France, that the immortal La Salle, under extraordinary privations, explored the course of the great river, now rolling before this noble depository of the commerce of the extended valleys of the Mississippi. To those in my hearing, the condition of this country at that period is familiar. But in the strong contrast presented, let us review, for a moment, the state of things then disclosed. Before the exploration and settlement of this country by the French, some few attempts had been made to examine the coast of Louisiana. Dr. Cox, the proprietary of Carolina, to whom it was conveyed by the Earl of Arundel, claimed that Carolina, as it was then called, extended from 31 to 36 degrees of north latitude, embracing so much of the continent and various adjacent islands. Twenty-three years before (1699), he boasts of having the possession of a journal and map, in the English language, furnishing a description of the country beyond the mouths of the Mississippi. He professes himself to have fitted out ships, and explored the country, one hundred and fifty leagues beyond this point. In 1778, New England sent forth adventurers, who traded to the coast of New Mexico. But no ingenuity, however tortured by jealousy, can deprive the French of the undoubted honor of having first explored the interior, and settled the country of the Mississippi. On the brow of La Salle and his friends the laurels rest, and there must they forever flourish in greenest luxuriance.

No higher evidence of advancement in whatever prospers and beautifies a country can be given, than to cast our eyes back upon her condition at this period. What was the spectacle then presented to La Salle as he floated along this noble river? The banks were bordered with trees extending from half a mile to two miles deep. Exuberant vines spread themselves one hundred feet from their roots.

From the outskirts of these shady groves, a beautiful country, spread itself into the distance, upon which sported numerous herds of wild cattle. Here were settled the Houmas, the Natchez and Corroas. Beyond the lake and pearl fishery, the civilized Tahensa, the Yasoue, the Tonnecas, and other tribes reposed in their barbarous security. But the white man was in their midst. His religion, his law, his industry, were to supplant the rude institutions of savage life, and cause the woodland echoes, then first startled with the unusual voice of civilized man, to become familiar with the less romantic, but more useful sounds of trade and agriculture. It would be an amusing and instructive task to trace the speculations of that day, and connect them with the present times. To follow Coxton, the bold privateer, to the bay of California, and the mouth of the river Colorado, and contemplate that enterprise which was to connect the trade of the Mississippi with the Pacific Ocean. To analyze the doubts which rested in the mind of the merchant and agriculturist as to the culture of cotton, when, hesitatingly, the opinion was expressed "that it might turn to some account, and perhaps prove an article of manufacture in England." To reason upon the "probabilities that on this continent there might be iron ore and coal in great abundance, and lead sufficient to supply present demands;" and become a spectator of the "great pains taken to make that fellow who rambled into the Indian country, and returned with his bag of gold dust, as heavy as he could well carry, discover the place of this deposit of divers sorts of metals, very ponderous."

These were the scenes, these the speculations of that age, which was about to transfer the valleys of the Mississippi into the hands of the present generation. How truly has the story of the miner and the shepherd been verified! Two Spaniards settled amid the gold mines of Potosi. One dug for gold and found it in abundance; the other fed sheep. In a few years the shepherd grew rich, and the gold finder poor. The useful arts are more valuable than the possession of precious metals. The last are only valuable, as they purchase the necessaries of life, and are expended to multiply the conveniences and promote the intercourse of the members of society. Hoarded up, gold is a lifeless mass. It only becomes inspired with animation and vigor when touched by the hand of commerce. In our day the fable of him who turned all he touched to gold is reversed. Gold now in the hands of a mercantile and industrious people, is changed to whatever is essential to the civilizing of mankind, to the prosperity of nations, the promotion of knowledge, and the extension of a pure religion.

It is not for me to speak of the local condition of New Orleans city when Iberville's colony was removed to it in 1722—when it was considered suitable for a place of temporary deposit; when its hundred rude cabins, its one wooden warehouse, its two or three miserable dwellings, its shed chapel, and population of two hundred, were observed by Charlevoix; when its trade was regulated by rules which would now astonish the Chamber of Commerce—rice three dollars a barrel, brandy thirty dollars a cask, copper a legal tender, and slaves of the value of one hundred and seventy-six dollars, pay-

what is her religion, her commerce, her constitution and laws? and what is history, but the condition of the people in relation to these?

1. In contemplating the subject of the religion of a society, the same state of things that obtains in relation to secular matters where distinct parties are concerned, is observable. The forms of religion necessarily create two parties—the teachers and those that are taught; the minister and the subjects of his ministrations; the priests and the people. In the primitive communities of mankind, the priest was generally a public officer, whose principal functions were of a different character, but who officiated in religious matters on great emergencies, or when specially appointed. Under the Christian religion a different state of things, modeled upon the ancient constitution of the Jews, sprung up. The hierarchy whose primitive institution was to preach the glad tidings of a religious emancipation to all nations, and the opening of the prison-doors to the captive, had become the chief counselors of kings; and the lessons of these ministers soon taught, that princes had a divine authority to dispose of the life, liberty, and property of their subjects, at pleasure; only subject to the regulation of their religious advisers. The effect of such a course of instruction upon the minds of barbarous barons and bloody-minded princes can be easily imagined. The consequence was that every vestige of liberty, every idea of the security of men's rights, was blotted out, not only from their system of ethics, but from the human mind. A distinct order appeared upon the theatre of events, who put forward the most extravagant claims, and acquired jurisdiction, not only of the people, but of their rulers, and of government itself. A system of checks and balances is essential to secure public peace and private integrity. There being no estate to keep in check the clergy of that time, all Europe was required to regard the Supreme Pontiff as the Head of the church, and as the supreme arbiter among nations. The effect was to elevate that class to the highest degree of power and authority in matters as well secular as sacred, and to reduce and degrade the public mind to the lowest extreme of humiliation and subjection. A similar state of society existed in Europe in later times, and stifled the early sparks of liberty which began to shine amid the ruins of Roman laws and institutions. The science of government and some of the professors of religion became too closely connected. The power of a ruler educated and controlled by corrupt counselors, is the same thing as the power of those counselors. When it became the interest of the monarch to oppress his people, men connected with the clergy were ready sometimes to aid in whatever measures were necessary to this end. To sustain him, was to sustain prerogative, and this, in the idea of James, was but unlimited authority, in appointing the bishops and judges, and to call parliaments at pleasure, to establish religion, make laws, and coerce subsidies. Catholicism, the dominant religion, on account of the connection of some of its ministers with these assertions of monarchy, came, with some, to be identical with despotism, and the source of unlimited power in kings. Without these prerogatives, the monarch could not be protected against the idea of equality; for with equality the doctrines of divine right and passive obedience are nothing. Many of the nations

of that day consequently hated Catholicism, not because, as a religion, it possessed peculiar forms and a distinct faith, but because individuals of that church were sometimes the agents of despotism, and the counselors of tyrants—not because it held men's minds to a peculiar system of religious worship, but because vicious men made that system the instrument by which others were socially enslaved.

We need but look around to perceive the evidence of the different views now entertained, not only here, but in all Christendom. Religion is the guardian of public morals, and the protector of private virtue. Its ministers have imbibed the true spirit of their master, and are universally engaged in their appropriate vocation of instructing ignorance, dispensing charities to the unfortunate, and promoting peace and good will among men.

With respect to that venerable Catholic church of which we have spoken, it may in justice be observed, that the abuses asserted to exist in regard to a connection of its spiritual and temporal power, never did endure in this country—where it has ever been distinguished for tolerance, and has confined itself exclusively to ecclesiastical affairs. In Europe also, as well asserted by Guizot, by opening her ranks to the laity, by combating the great vices of the social condition, by her labors in the improvement of civil and criminal legislation, and by her earnest protection of the Third Estate, which sprung out of her order, she contributed in a very great degree to that political and moral reform, which, to-day, elevates France high above any of the monarchies of Europe. Hence the injustice of that idea, sometimes advanced, that to put forward the principles of the Reformation, we must abolish the Catholic religion. It never was the purpose of the Reformation to abolish Catholicism. It was the object of the Reformation to tolerate the Catholic religion, and only reform it *in* the church. Without tolerance of worship in that country in which its principles first took root, the Reformation itself could not have flourished so successfully; and by tolerance it must continue to live. The spirit of the age is, and will continue to be, toleration. This was foreseen by that eagle-eye which pierced the darkness of Europe—Napoleon. He saw that the greatness of the religion of Rome consisted in confining it to spiritual affairs. When reproached with the design of destroying the church, he said: "Let your mind be perfectly easy. The policy of the state is intimately connected with the maintenance of the power of the church. I will make it more powerful than ever." He saw that a separation of the temporal from the spiritual authority was inevitable—that it was demanded by the encroaching spirit of democracy, and he decided to separate them forever. Therefore was it he quoted on the Pope the declaration of Christ—"My kingdom is not of this world."

The present illustrious head of this church, instead of indulging in a debasing mockery of vanity, and causing prostrate monarchs to hold his stirrup, cheers the dark region of Italy with the light of civilization—infuses the spirit of the age into the lifeless mass of Rome's slumbering statues; reforms the law; meliorates the condition of the human race depending on his government; gives the sciences, the arts, and letters, the freedom of his dominion; and abolishes that

lic religion is the religion of a sect, followed under the protection of our constitution for its own sake ; with its followers the security of social and personal rights is of as much importance as with Protestants. The Protestant clergy, too, have lost all that rigidity of faith, which in the early days of the reformers, began with intolerance and ended with persecution. Ministers of every denomination in the United States are restored to their true position—each emulous only of achievements and triumphs in favor of religious and intellectual liberty, devoted to the improvement of the moral and spiritual condition of their flocks, and depending for their revenue upon voluntary contributions.

2. In the political and legal institutions of the country, the same mighty changes have been effected.

Every view of history shows that the human mind is compressible only in an uncongenial soil, and under despotic institutions. Under mild laws and the lights of knowledge, it is susceptible of infinite expansibility. The condition of the Roman government illustrates this position. While the enterprise of the nation was encouraged ; while the jurisdiction of the people was concurrent with that of the Senate ; while a Roman citizen, though his farm was no larger than that of Cincinnatus, and his ancestral claims no more illustrious than those of the first Dictator, was yet a member of the State, and his voice in the councils of his country as potent as the wealthiest of the Conscript Fathers, the object of government was gradually becoming better known, and popular rights more effectually established. This concurrence of legislative power was exercised with a bold hand by the Roman democracy. The conquests which the nation made under its influence, substituted good for bad laws ; and if, amid bloodshed and the devastation of barbarian countries, they cut their way into the provinces of the north, it was but to institute the superior discipline of Roman warfare ; to tear up by the roots the superstitions which grew amid awful mysteries under the Druid oak ; to engraft upon the customs of the people the noble principles of Roman law, and inspire that taste for civilization, which impelled the barbarians, afterward, to rush down upon Italy, and plant a vigorous population upon its effeminate soil. For however delighted the Saxon may dwell over the early institutions of his rude ancestors, it is certain that the vassals of that country, under the feudal system, when compared to the citizen of Rome, occupied but the condition of the oxen, their fellow-laborers. As soon therefore as the spirit of conquest had taken hold of the northern nations, and Rome, like the States of South America, weakened by the jealousies and contests of rival leaders, became the field to which the northern nations were directed—liberty—her sacred national institutions—the rights and refinement of her people—all beset by these barbarians, could not but expire on the plains of Italy. Then it was that all the knowledge which her wise men and patriots had been accumulating for ages, disappeared in that awful darkness, that great intellectual eclipse of the age, when ignorance, and superstition, and brutality, interposed between men and the great Sun of Roman patriotism and learning.

If we except the activity, rather physical than mental, which was excited by the occasional disputes of the Gothic princes, the intellect

of Europe, long after this disastrous period, lay in a state of profound repose. The clergy, who alone carried the keys of knowledge, found ample employment in the conversion and edification of princes: but no ray of science shed its influence on the minds of the actors in these tumultuous times—no enlarged views of philanthropy, or of human improvement, arose to bless the age. The laity were sunk in the extreme of ignorance; while a succession of wicked kings, governed by a vicious priesthood, completed the degradation of all Europe. The cloud rested with equal darkness upon all the several institutions of society; politics, religion, and laws. The attempts to recover the Holy Land, which occupied the attention of Europe for nearly three centuries, can be regarded only as expeditions in which fanaticism and misapprehension of religious duty were the ruling motives. Wars, in these periods, were neither the resistance of unjust invasion, nor the assertion of the rights of men. Peace did not confine itself to the settlement of great principles of constitutional liberty, to reformation in the laws, or to the security of personal rights. On the contrary, brutal contests for territory distinguished them; while rude customs, strangely blended with incongruous fragments of the civil law, presented the idea of a wild, unpruned vine encircling the remains of a finely sculptured column.

Very different is the state of political and legal ethics in the age in which we speak. The embers which were preserved in the ancient constitutions of Rome and Greece, have been blown into a flame which illuminates both sides of the Atlantic. The rights and duties of the people, as well as of government, are as carefully studied by the laity, as by those who once claimed a monopoly of divine favor. An impulse has been given to the cause of well-regulated liberty on the American continent, which is reflected back on our ancestral homes, and gradually dissipates that cloud yet resting on her people. All this is the result of the spirit of nautical adventure which marked the close of the fifteenth century. A revolution, the consequences of which it will take ages to develop, succeeded the discoveries of Columbus; and the introduction of a new world to the acquaintance of Europe, essentially, and almost immediately, changed the face of all Christendom. The intellect of mankind, now relieved from trifling, monkish, and unsatisfactory pursuits, has received a direction more congenial with its elevated origin, and the immortality of its ultimate destination.

It ought not to be disguised, that with respect to the domestic institutions of the South, some sentiments of distrust and resentment are occasionally uttered. We will not permit our confidence in the patriotism and intelligence of the people of the United States to be at all impaired by the excitements of this controversy. We believe it grows out of the derangement of a few religious minds, and the corruption of designing office-seekers; and that the mass of the northern people, with all their moral principle, their love of the institutions of the country, their sacred regard for the blessed constitutional freedom of these States, never will sacrifice the Union for a mere abstract idea of individual liberty; which so far from freeing the soul from sin, or the mind from ignorance, or the body from want, will remain a fever of the brain, incapable of any application to

the duties or charities of life; for that there must be a servile race, is inevitable, while ever there is a division of labor, a distinction in avocations, a difference in intellect, and a disproportion in the conditions of men with respect to wealth. How otherwise would great public enterprises be carried on? or the intellect be devoted to the arduous pursuit of scientific truths, or, indeed, a refined intercourse in the social elegances of life be induced? Men's wants and vanities will force them to it; and to effect a change in the nature of it, with respect to ourselves, would be only to transfer the dependence from one species to another. But we have no fears of an interference in this matter, if the body of the people are permitted to act for themselves. Let northern and southern politicians agree to be silent on the subject, and our existence for the stake, the people will never disturb it.)

The present state of what may be termed the local law of the times, is also in an advancing state. It is true that the systems of the several States, growing up alongside of peculiar habits and various constitutions, often appear, when considered in connection with the great code of England, incongruous and confused; but as the knowledge of jurisprudence increases, men see the necessity of harmonizing the law more with principle, and learn to value more highly the elements of a science which regulates the affairs of society, and protects the highest interests of its members. The reproach sometimes cast upon that peculiar system which exists in Louisiana, if not the result of ignorance, is certainly the conclusion of minds from which the prejudices of the old Protestant jurists are not yet expelled. With these, the civil law was always odious, because connected with the history of the Roman Church. The association of that clergy with the times, of which we have spoken in our review of the political affairs of ancient times, generated prepossessions against everything with which the name of Roman was joined; and yet, while the writers to whom we are indebted for the early works on the common law, were unwilling to have it known that a solitary principle of that code was derived from the Roman law, still they borrowed from the latter, and embraced in the former as original institutions, many of the provisions which effectually secured the liberty of the people, and guarded the several interests of the social circle. Numerous principles, therefore, now considered as modern assertions of government, many definitions of right, operating as securities of the person and property of the citizen, may be traced to the original fountain of all law—the civil code.

The civil law was the law of the learned: it had, therefore, the advantage of all other systems, of being settled on *principles*. It was born in the most intelligent age of ancient times: it was a system enforced by the sanctions of religion; while the common law, as derived from the Saxons and Normans, was but a collection of rude customs, established in times of savage ignorance, and gathered from many tribes, agreeing but in their barbarity. If, in these customs, as they have descended to our times, a ray of liberty or principle of justice is found, it is because connected with that more beautiful and harmonious system, which impressed its living characters

law in England, at the time of the colonization of the other States, accounts for the general adoption of the common law, with all the prejudices of its jurists, in all the States except Louisiana. This last State came into the Union at a later period, and was a French colony. The civil law which regulated her affairs was, therefore, grafted on more genial and free institutions; and it speaks well for the system, that the jurisprudence of no State stands higher in the judgment of the learned; nor has the science anywhere reached a nobler elevation, than in Louisiana. The greatest of the interests of society are effectually protected in the ancient principles of this code; and while ever laws, governing the rights of persons and of property, of marriage and of contracts, shall have a relation to the social compact, the civil code must be looked to for their explication and decision. The common law, as a distinct system, cannot wear away, as is often predicted, the remains of ancient Roman jurisprudence. As learning advances, and the minds of our people become prepared to receive truth, in that proportion will the civil law be studied and adopted, and its principles diffuse themselves throughout all society. What could be more brilliant and imposing than that faith upon which this noble edifice was built? a faith which declared that reason is a general law to men—that virtue should be pursued for itself, without regard to rewards that might conclude that pursuit, virtue being sufficient to render men happy of itself—that there is nothing useful in life, but that which is also good and just—that a wise man should mix in public affairs, not less to oppose vice than encourage virtue—that the administration of public affairs should be committed alone to wise men, because they being alone capable of deciding upon good and evil, can alone know the people's rights: the only faith which recognized a class of intelligent and virtuous men as superior to the ignorant and vile—while all other sects of the time proclaimed the destruction of every system of honor. A system which influenced jurisprudence with sentiments of natural justice, and corrected its errors by a species of divine equity—which inspired the science of government with virtuous principles, and regulated the morals of the people by the most sublime truths.

3. But to what purpose would all these institutions flourish, if commerce did not exist for their support? History is full of instances proving to what a height the prosperity of a nation may be carried by the encouragement of a spirit of commercial enterprise among her people. To her merchants was Tuscany indebted for that tranquillity which she enjoyed for four centuries. Venice also became magnificent through trade, and the name of merchant was for centuries there identical with the proudest rank of Senator. While influenced by the counsels of commercial men, the State enjoyed a tranquillity which for ages exempted her from a single riot or sedition. Amid the prosperity which crowned these States, the sciences were liberally encouraged, and their cities became the depositories of the noblest monuments of ancient or modern art. One of these was enabled to furnish the Duke of Savoy with twenty thousand troops, without a tax upon her people; and the only two works of art which

another. In Florence the highest hereditary rank was that which distinguished the descendants of Cosmo de Medicis; who, in the brilliant language of the great, and in many respects harshly condemned Voltaire, presented the admirable spectacle of citizens selling with one hand the produce of the Levant, and with the other supporting the weight of the republic—entertaining factors and ambassadors; opposing an artful and powerful Pope; making peace and war; standing forth the oracles of princes, and the cultivators of belles-lettres; furnishing amusements to the people, and giving a reception to the learned Greeks of Constantinople.

We discover, too, in Holland, the plainer but not less useful results of the labor and sobriety of the people. Devoting themselves to commerce as early as 1608, they had made the conquest of the Moluccas, and formed settlements in Java. Their East India trade in seven years had doubled, and Siam and Japan had sent ambassadors to solicit their friendship and trade. What higher compliment to a nation thus secure in her internal resources, could be paid, than that furnished by Spinola, who, seeing a company of plain men seated on the grass making a frugal meal, each the bearer of his own provisions, and being told they were the deputies of the States of Holland, said, "These people never will be conquered, we must make peace."

But however brilliant these instances of history, how much more splendid, because more beneficial, are the results to be attributed to the discovery and settlement of our own continent; an event opening a new arena for the exercise of the faculties of European nations, before that time contracted for want of a suitable space for display, and now the great field of the extraordinary enterprise of their descendants. When, turning from the declining regions of the East, we observe the ceaseless activity of our people evinced in the expansion of their commercial relations; their unbounded influence over every part of the globe; their advancement in every science which tends to improve the mind or benefit society; can we doubt but that while Christianity, industry and knowledge, continue to be cherished by us, this continent will become the radiating point of liberty and intelligence?

New Orleans, from her position, is certainly destined to discharge important obligations in this predicted moral and intellectual advent. She is the centre of a commerce whose wings protect the shores of the gulf, and stretch over the broad valleys of the Mississippi. She will soon be the key of the trade of one hundred millions of people, who, from their fertile fields, are to supply the bread and clothing of the world. Even now, from the impoverished population of Europe, comes an appeal to your godlike charities—"Give us this day our daily bread." The laughter-loving daughters of Erin, mirth, and poetry, who once from their golden lyres raised the song of gladness, to celebrate the union of Freedom with young America, now hang their harps on the withered willows, and weep when they view the desolation of their wasted isle. But from the munificent gifts of this city, to the humblest of the more lowly village, the appeal is being answered by our countrymen, and we trust may become a national act. Astonished Europe will then behold the order of

nature reversed, and the stream of benevolence pouring from the child's bosom and sustaining the perishing mother.

It is grateful to contemplate the evidences afforded in this city of the determination of its merchants to comply with the duties resting upon them—not confining their estimate of this duty to that selfish maxim, that the greatest possible happiness is to secure the greatest produce of labor—but who find their greatest possible happiness in distributing that produce to the advantage of their fellow-men. It was said of Tyre, that her merchants were princes; how much more elevated will the merchants of this city stand in the judgment of posterity, who are directing their immense wealth to the great objects of improving the country, and giving an outlet to its agriculture—who in their benevolent institutions, their public libraries, their systems of schools, are advancing the morals and educations of their youth; and who, as was voluntarily done in late instances, lay open their treasures to sustain those who are rushing to the support of their country in her wars.

Permit a brief reference to a neighboring city, with whose interests we may be supposed more closely connected. MOBILE should be occupying a very different commercial position than she does; and it is melancholy to see that an opinion of her decline, whether actual or imaginary, exists in the minds of her people. It would be valueless to inquire of its causes, unless that inquiry should prompt a remedy. For ourself, we believe that the causes lie less in the country, than in the want of a unity of energetic action in her people. No society can prosper by a merely transient trade. Each country possesses, in itself, a permanent source of trade, which must be developed fully before commerce can take deep root and flourish successfully. The profits of a trade, merely dependent upon the transient passage of produce or manufactures through the hands of agents, are but very partially distributed. They may make individuals rich, but will cause cities to become poor. Let Mobile open means of communication with the interior; let the interior give her a generous confidence; let it pour into her bosom the various mineral resources of that interior—the iron, and coal, which exist in such abundance; and instead of the cold, unnatural apathy which prevails, let the up-country regard her as our own outlet to the sea; and Mobile will no longer be looked upon as a place of mere deposit. We are sorry to say that, occasionally, a spirit of hostility has been displayed between the merchant and agriculturist. Without stopping to say how much the merchant is benefited by agriculture, it is certain that without commerce, the planter would be nothing. Without the merchant, as the agent of exchange, the land would be cultivated in selfishness, and for mere subsistence. In this condition we contemplate a barren country, and the cultivators of the soil indigent and barbarous. With the merchant to receive and exchange products, a more cheerful aspect is given to society. The wealth accumulated by the merchant is returned to the planter in works of improvement. To whom, but to them, is agriculture indebted for the steamboats, the railways, and other works which contribute so essentially to promote intercourse, and advance the interests of men? Let us hope that a more generous intercourse may

that minds will be found liberal enough to set at defiance those unnatural prejudices which are retarding the progress of all the interests of Alabama.

4. Seeing to what point the ancients carried the various subjects we have considered, Religion, Law, Commerce, and the Arts, and how far, in our own age, the present generation is advancing them, we may scarcely limit conjecture as to their progress in the hands of posterity. It is related of Pope Adrian, that, to settle disputes between the Portuguese and Spaniards as to their discoveries, he drew a line upon the globe. Successive discoveries required this line to be continually changed. It was emblematical of that line of civilization and liberty which is constantly being removed westward. The line dividing the civilization of this country from the barbarism of the East, must be farther and farther removed, until it shall throw its reflection across the Pacific. Already it sheds a twilight on the South Sea islands, and must soon diffuse over China the blessings of Christianity, by whose light her barbarous people may be at once instructed in truth, and humanized in the arts of life. The South-west is in the van of this advancing tide of civilization. To her people's eyes is disclosed the opening prospect; and they carry the torch in that race of freedom and virtue, whose goal will not be bounded by the shores of the Pacific. It is not for us to conjecture what Providence shall select as instruments to bring about this result: whether the war now waged with our southern neighbors is designed as one of them, it is inevitable that, either in peace or war, the institutions, the laws, the arts, the commerce, of this country are rapidly advancing, step by step, upon the nations south and west of us. Whatever flag floats over the territory between us and Capes Horn and St. Lucas, it is certain that its physical, intellectual, and moral barbarism, are being dispersed. As the misty cloud that hangs over the eastern sky gradually melts away as the rising sun pours his rays onward, so the darkness now resting upon the faculties of that country, is being scattered by the great blaze of well-regulated liberty, rising and pouring its effulgence from the bosom of our Union. The depravity of morals, the misconceptions of politics, the ambition, the fanaticism, the wildest human passions, the restrictions upon commerce, must all disappear; and well-regulated government; religion, whose offices are the dispensation of the great charities of life; laws, founded on well-defined principles of constitutional right; commerce, untrammelled by the authority of the State; a land smiling under culture, and a people, happy in the efforts of virtue and intelligence, must take their place.

Art. VII.—THE CHICAGO AND MEMPHIS CONVENTIONS.

THE call which was made upon the Southern and Western States in the autumn of 1845, was responded to with great unanimity in the assemblage of the Memphis Convention. We attended that Convention as a delegate and in the capacity of one of its Secretaries. The

establishing a periodical work which should be a true exponent of these great regions of our country, and furnish at all times, even to minute details, the most reliable information upon their important interests—constituting a map of their progress, open ever to be consulted. We communicated our views to many members of the Convention, by whom they were warmly seconded; and upon our return to New Orleans the first number of the present work was published, embracing the Reports and Statistics of the Convention, etc., etc.

The Memphis Convention adjourned—and its result, independently of the influences on the South and West in bringing them into a near and friendly union, were, a memorial to Congress, and a Report by the Hon. John C. Calhoun, at the head of a special Committee. The fate of the Report and the Resolutions all will remember. But there is little likelihood that they have yet been disposed of. Indeed we know that Mr. Calhoun designs calling them up again, and will take occasion to explain more fully and elaborately his views than he has yet been able to do.

The CHICAGO Convention was the natural and inevitable consequence of the MEMPHIS, and we so predicted long ago. The doctrines and principles of the latter, while they harmonized with the views of many portions of the Union, did not command the sentiments of a majority of the West or of the Union. Discussed and doubted in some sections as extending too wide the domain of action, they were condemned in others as altogether restrictive and suicidal to the interests of the West.

The Memphis Convention sought to conciliate all parties, and agree on some practical plan of action—a *compromise*, if necessary—which could meet the general approval and hearty co-operation of all sections, as the very best which, under the circumstances, could be secured; the Chicago Convention, on the contrary, denounces this as impracticable and injurious, and in no respect adequate to meet the requisition and necessities of the North-west and the Lakes. It comes out boldly, cuts the Gordian knot, and declares openly for a *system of internal improvement upon western lakes and rivers, co-extensive with all the requirements of their rapidly increasing commerce.*

We reviewed, in our number for Sept. 1846, the Report of Mr. Calhoun, and expressed some doubts. The paper we characterized as one of the most remarkable and able which had ever emanated from that great statesman—in which, we believe, almost all who oppose its doctrines agree. The Report having had but a limited circulation, and being entitled to preservation in some standard form, we shall, we are sure, do some service to the country by furnishing it as an appendix to the present article. The able letter of Mr. Webster, in which the whole subject of Internal Improvement is discussed with the hand of a master, will be at the same time presented. They should go together, and be read together, down to posterity; representing, as they do, the antagonistic principles of the first great Conventions ever held in the Mississippi Valley.

It is unnecessary for us to comment upon either of these American papers. It is sufficient for an editor, *neutral* in politics, that they be fairly presented, so that all may make up their own opinions and de-

The Chicago Convention is said to have originated in a casual meeting of Western men at Rathburn's Hotel, in New York. The Convention assembled on the fifth of July, and embraced, it is estimated, several thousand delegates. We believe no exact return of them has yet been furnished, and are rather disposed to question the number—though in such a wonderful region as the North-west, nothing is impossible. The delegates were from Maine, Massachusetts, New York, Indiana, Rhode Island, Connecticut, New Jersey, Pennsylvania, Ohio, Illinois, Michigan, Iowa, Wisconsin, Missouri, Kentucky, Georgia, and Florida. The temporary Chairman was Jos. L. Barton, of Buffalo.

EDWARD BATES, of Missouri *President*.

Vice Presidents.

John A. Brockway, Conn.
J. G. Camp, Florida.
T. B. King, Georgia.
E. W. L. Ellis, Indiana.
W. Woodbridge, Michigan.
E. Corning, New York.
L. Kirkpatrick, New Jersey
Governor Bibb, Ohio.

A. W. Loomis, Pennsylvania.
Mr. Hoppin, Rhode Island.
J. H. Tweedy, Wisconsin.
A. W. Watkins, Missouri.
Judge Williams, Iowa.
Charles Hempstead, Illinois.
M. A. Chandler, Maine.
W. P. Eustis, Massachusetts.

Secretaries.

Schuyler Colfax, Indiana.
N. E. Edwards, Illinois.
F. W. Fenno, New York.
A. B. Chambers, Missouri.
Aaron Hobart, Massachusetts.

David Noble, Michigan.
Peter McMartin, New Jersey.
N. W. Otis, Ohio.
Frederick S. Lovell, Wisconsin.
H. W. Starr, Iowa.

A number of letters were read. Mr. Webster heartily concurred with the Convention; Silas Wright, of New York, adopts the harbor feature, but hesitates upon the rivers—some are clearly within the Constitution, others not—no general rule can be devised; Mr. Benton *first* proposed a canal from the Mississippi to the lakes by government, and was the "*first* to propose to include the upper Mississippi and Missouri within the circle of internal improvement by the government"—no arbitrary rule can be made for improvement (a dash at Mr. Calhoun); Mr. Van Buren is, of course, ambiguous; circumstances will put it out of Mr. Cass's power to be present; Mr. Clay is heartily with the Convention.

An executive committee, consisting of two from each State, was appointed to collect all necessary statistics, and to memorialize Congress upon the subject of the resolutions. The Hon. Abbot Lawrence is the chairman.

The Committee were,*

Massachusetts—Abbott Lawrence, Boston; John Mills, Springfield.

New York—John C. Spencer, Albany; Samuel B. Ruggles, New York city.

Kentucky—James T. Morhead, Covington; James Guthrie, Louisville.

Indiana—Jacob G. Sleight, Michigan city; Zebulon Baird, Lafayette.

* It is well to observe, that, since the adjournment of the Convention, the Committees have had a meeting, and assigned special subjects to its different members, viz.: to collect statistics and information upon Buffalo and Lake Ontario, Hon. John C. Spencer, of New York; on shore of Lake Erie, J. L. Weatherby, of Cleveland; on Illinois, Jesse B. Thomas, Chicago; Wisconsin, Rufus King; Mississippi and tributaries, Thomas B. Allen, St. Louis, T. J. Bigham and J. Guthrie. Important materials may be expected

Missouri—Thomas Allen, St. Louis; James M. Converse, St. Louis.
Rhode Island—Alexander Duncan, Providence; Zachariah Allen, Providence.
Iowa—George C. Stone, Bloomington; Wm. B. Ewing, Burlington.
Ohio—James Hall, Cincinnati; Joseph L. Weatherly, Cleveland.
Connecticut—Thomas W. Williams, New London; Philip Ripley, Hartford.
Pennsylvania—T. J. Bigham, Pittsburgh; S. C. Johnson, Erie.
Wisconsin—Rutus King, Milwaukee; Wm. Woodman, Mineral Point.
Georgia—Thomas B. King, Savannah; Wm. B. Hodgson, Savannah.
Florida—L. G. Camp.
Michigan—Jos. R. Williams, Constantine; David C. Noble, Monroe.
Maine—Charles Jarvis, Surrey; George Gooves, Gardiner.
Illinois—David J. Baker, Alton; Jesse B. Thomas, Chicago.
New Jersey—Charles King, Elizabethtown; Littleton Kirkpatrick, New Brunswick.
New Hampshire—James Wilson, Keene; John Page.

The following propositions, prepared by the Hon. John C. Spencer, of New York, were adopted by the Convention :

“ 1. That the Constitution of the United States was framed by practical men, for practical purposes, declared in the preamble—‘to provide for the common defense, to promote the general welfare, and to secure the blessings of liberty;’ and was mainly designed to create a government, whose functions should be adequate to the protection of the common interests of all the States, or of two or more of them, which could not be maintained by the action of the separate States. That in strict accordance with this object, the revenues derived from commerce were surrendered to the General Government, with the express understanding that they should be applied to the promotion of those common interests.

“ 2. That among these common interests and objects, were 1st, Foreign commerce, to the regulation of which, the powers of the States, severally, were confessedly inadequate; and 2d, internal trade and navigation, wherever the concurrence of two or more States was necessary to its prosecution, or where the expense of its maintenance should be equitably borne by two or more States, and where, of course, those States must necessarily have a voice in its regulation; and hence resulted the constitutional grant of power to Congress, ‘to regulate commerce with foreign nations, and among the States.’

“ 3. That being thus possessed both of the means and of the power, which were denied to the States respectively, Congress became obligated by every consideration of good faith and common justice, to cherish and increase both the kinds of commerce thus committed to its care, by expanding and extending the means of conducting them, and of affording them all those facilities, and that protection which the States individually would have afforded, had the revenues and authority been left to them.

“ 4. That this obligation has ever been recognized from the foundation of the government, and has been fulfilled partially, by erecting light-houses, building piers for harbors, break-waters and sea walls, removing obstructions in rivers, and providing other facilities for the commerce carried on from the ports on the Atlantic coast; and the same obligations have been fulfilled to a much less extent, in providing similar facilities for ‘commerce among the States;’ and that the principle has been most emphatically acknowledged to em-

light-houses upon them, which appropriations have never been questioned in Congress, as wanting in constitutional authority.

"5. That thus, by a series of acts which have received the sanction of the people of the United States, and of every department of the Federal Government, under all administrations, the common understanding of the intent and objects of the framers of the Constitution, in granting to Congress the power to regulate commerce, has been confirmed by the people, and this understanding has become as much a part of that instrument, as any one of its most explicit provisions.

"6. That the power 'to regulate commerce with foreign nations, and among the States, and with the Indian tribes,' is, on its face, so palpably applicable in its whole extent, to each of the subjects enumerated equally, and in the same manner, as to render any attempt to make it more explicit, idle and futile; and that those who admit the rightful application of the power to foreign commerce, by facilitating and protecting its operations, by improving harbors, and clearing out navigable rivers, cannot consistently deny that it authorizes similar facilities to 'commerce among the States.'

"7. That 'foreign commerce' itself is dependent upon internal trade, for the distribution of its freights, and for the means of paying for them; so that whatever improves the one, advances the other; and they are so inseparable, that they should be regarded as one. That an export from the American shore to a British port in Canada, is as much foreign commerce as if it had been carried directly to Liverpool; and that an exportation to Liverpool neither gains nor loses any of the characteristics of foreign commerce, by the directness or circuitry of the route, whether it passes through a custom-house on the British side of the St. Lawrence, or descend through that river and its connecting canals to the ocean, or whether it passes along the artificial communications and natural streams of any of the States to the Atlantic.

"8. That the General Government, by extending its jurisdiction over the lakes and navigable rivers, subjecting them to the same laws which prevail on the ocean, and on its bays and ports, not only for the purpose of revenue, but to give security to life and property, by the regulation of steamboats, has precluded itself from denying that jurisdiction for any other legitimate regulation of commerce. If it has power to control and restrain, it must have power to protect, assist, and facilitate; and if it denies the jurisdiction in the one mode of action, it must renounce it in the other.

"9. That in consequence of the peculiar dangers of the navigation of the lakes, arising from the want of harbors for shelter, and of the Western rivers, from snags and other obstructions, there are no parts of the United States more emphatically demanding the prompt and continued care of the government, to diminish those dangers, and to protect the property and life exposed to them; and that any one who can regard provisions for those purposes as sectional, local, and not national, must be wanting in information as to the extent of the commerce carried on upon those lakes and rivers, and of the amount of teeming population occupied or interested in that navigation

"10. That having regard to relative population, and to the extent of commerce, the appropriations heretofore made for the interior rivers and lakes, and the streams connecting them with the ocean, have not been in a just and fair proportion to those made for the benefit of the ports, harbors, and navigable rivers of the Atlantic ports; and that the time has arrived, when this injustice should be corrected in the only mode in which it can be done, by the united, determined, and persevering efforts of those whose rights have been overlooked.

"11. That independent of this right to protection of 'commerce among the States,' the right of 'common defense,' guarantied by the Constitution, entitles those citizens inhabiting the country bordering upon the interior lakes and rivers, to such safe and convenient harbors as may afford shelter to a navy, whenever it shall be rendered necessary by hostilities with our neighbors; and that the construction of such harbors cannot safely be delayed to the time which will demand their immediate use.

"12. That the argument most commonly urged against appropriations to protect 'commerce among the States,' and to defend the inhabitants of the frontiers, that they invite sectional combinations to insure success to many unworthy objects, is founded on a practical distrust of the republican principles of our government, and of the capacity of the people to select competent and honest representatives. That it may be urged with equal force against legislation upon any other subject involving various and extensive interests. That a just appreciation of the rights and interests of all our fellow-citizens, in every quarter of the Union, disclaiming selfish and local purposes, will lead intelligent representatives to such a distribution of the means in the treasury, upon a system of moderation and ultimate equality, as will in time meet the most urgent wants of all, and prevent those jealousies and suspicions which threaten the most serious dangers to our confederacy.

"13. That we are utterly incapable of perceiving the difference between a harbor for shelter and a harbor for commerce, and suppose that a mole or pier which will afford safe anchorage and protection to a vessel against a storm, must necessarily improve such harbor, and adapt it to commercial purposes.

"14. That the revenues derived from imports on foreign goods belong to all the people; and the public lands being the common heritage of all our citizens; so long as all these resources continue, the imposition of any special burden on any portion of the people, to obtain the means of accomplishing objects equally within the duty and the competency of the General Government, would be unjust and oppressive.

"15. That we disavow all and every attempt to connect the cause of internal trade and of 'commerce among the States' with the fortunes of any political party, but that we seek to place that cause upon such immutable principles of truth, justice, and constitutional duty as shall command the respect of all parties, and the deference of all candidates for public favor."

AMERICAN MERCANTILE BIOGRAPHY.

No. I.*—STEPHEN GIRARD.

At the head of this department conspicuously is the name of **STEPHEN GIRARD**. It has inscribed itself upon the pages of our country's history, and is identified with our earliest commercial progress. Where better could we begin in presenting the memoirs and the portraits of **EMINENT MERCHANTS**?

Mr. Girard's history will require but little comment, being familiar to most of his countrymen. He was a native of France, born in 1750. Poor, uneducated, and friendless, his first occupation was that of cabin-boy and sailor. He passed to the West Indies, and then to this country. Here we find him the mate, then the captain and part owner of a small craft between New York and New Orleans. His first appearance in Philadelphia was about 1769, where all his future glory was to be manifested. He began a petty trader.

In company with Hazzlehurst, Mr. Girard purchased two vessels for the St. Domingo trade. His trade, until 1776, was with New Orleans and St. Domingo. We find him soon after the owner of a small grocery and bottling house. He supplied the American soldiers, during the war, with claret and cider. After the peace, the New Orleans and French trade was revived, and Mr. Girard's prosperity began. The insurrection at St. Domingo, and the immense unclaimed deposits put in his vessels by persons who were massacred, opened his fortunes.

He soon after began to build ships for the Calcutta and China trade. With the establishment of his bank, we are familiar; his conduct during the Philadelphia pestilence, his aid to the government during the last war, and his other acts of great and liberal public spirit. It is unnecessary now to speak of the peculiarities of his person and character. His appearance is said to have been that of an old sailor, with a hard face, and but one eye; his habits parsimonious. In sentiments he was an infidel. He died in 1834, of an influenza, being 84 years old.

His will has been made a common matter of fame, and the misfortunes attending the great property bequeathed, amounting to many millions.

To the Pennsylvania Hospital he gave \$30,000; Deaf and Dumb Institute, \$20,000; public schools, \$10,000; Orphans' Asylum, \$10,000; distressed masters of ships, \$10,000; Masonic loan, \$20,000; captains in his service, \$1,500 each; apprentices, \$500 each. To the city of New Orleans, 206,000 acres of land, with thirty slaves; and to Philadelphia the rest of his Louisiana property. To Pennsylvania, \$300,000, for internal improvements; for the improvement of the Delaware, &c., \$500,000, besides other important bequests to the city, &c.

But the most munificent donation was that for the celebrated **GIRARD COLLEGE**, now in course of construction in Philadelphia. Nothing can exceed the magnificence of these buildings, or ensure more gratifying results to the country. Two millions of dollars was the munificent appropriation for this orphan charity.

Mr. Girard is dead, but his memory will last and be cherished by thousands. Let us all imitate the bright features of his character, and avoid his defects. To our enterprising and rising merchants how fruitful an example!

AGRICULTURE AND MANUFACTURES—SOUTH AND WEST.

THE CULTIVATION AND MANUFACTURE OF SUGAR IN LOUISIANA.

We have lately been engaged in the collection of materials upon Sugar as cultivated and manufactured in our own and foreign countries, as also upon the **SUGAR TRADE** of the world. We entered into some considerable correspondence, replies to which have not yet been received except in part. It is our aim to take up the subject in every point of view, and spare no pains and expense in collecting everything that can be had in our own or in other countries. It is only in this way that this important branch of American enterprise can be successfully prosecuted and produce the highest results. As the material reaches us it shall have place in consecutive numbers of the Review.

The reader will find many able articles upon this subject in our back numbers, which will be studied to great advantage.

* This will be followed up in a similar manner from other leading merchants living in every section of the

The Hon. E. La Sere has forwarded us according to request, several documents from Washington, from which much that is of interest may be digested.

The *first* contains the replies of the proprietor of the Louisiana Sugar Refinery in 1839 to the interrogatories of a committee of the legislature.

Question. How long have you been in operation ?

Answer. We commenced boiling on the first of February, 1832.

Q. How many hogsheads of sugar have you melted ?

A. 330 hogsheads from the first to the eighteenth February.

Q. Have you employed any foreign sugars ?

A. No; none whatever.

Q. What prices have you paid heretofore for Louisiana sugars ?

A. Two and six cents, according to quality.

Q. What are the present prices of Havana sugars in the market ?

A. White can be bought at ten cents, and we have been offered browns at six and three quarter cents.

Q. Have you ever refined foreign sugars ?

A. I have been a partner for five years in one of the most extensive refineries in London, and have worked many thousand hogsheads of West India, and larger quantities of East India and other sugars.

Q. At the present price of Louisiana and foreign sugars, to which would you give the preference for the purpose of refinery ?

A. At the present prices, I decidedly prefer the Louisiana sugars. The result from prime Louisiana sugar has been fully equal to that of any other descriptions I have ever refined.

The *second* is the memorial of Charles Louis Fleischmann, 1839, which embraces history of the beet root-sugar; increase of the manufacture and consumption in France; condition of the colonies; progress in England; progress in Russia, Germany, &c.; importance of the new process, examined by a French author; chemical analysis of the beet-root; microscopic examination of the beet, by M. Raspail; results of examination; progress of the sugar manufacture in America; comparative price of labor, &c.; advantages in favor of the United States, &c.; sugar produced in Louisiana; importation of sugar in the United States, and the advantages of home production; sugar from the pumpkin; sugar from green corn, and rotation of crops; the yield and profit of the beet manufacture; an ingenious apparatus for reducing saccharine liquids; reasons for encouraging this branch of industry in the United States; qualifications necessary for an agent, &c., to obtain the necessary information in Europe, relating to the manufacture of beet-sugar, &c.

The *third* is the Report of the Secretary of the Treasury in answer to the interrogatory of Hon. Robert Nicholas, showing the export and import of sugar into the United States for the year ending 30th Sept. 1839, as follows:

SUGARS EXPORTED FROM UNITED STATES, 1838-39.

Danish West Indies,.....	lbs. 23,591	\$2,860
Dutch West Indies,.....	250	33
Gibraltar,.....	567,362	80,547
French Mediterranean ports,.....	4,628	370
French West Indies,.....	3,680	346
Italy,.....	1,645,449	144,602
Sicily,.....	1,184,367	168,297
Trieste and Adriatic ports,.....	362,445	32,700
Turkey, Levant, &c.,.....	107,423	9,669
Haiti,.....	1,897	255
Texas,.....	73,062	8,846
Mexico,.....	378	56
Honduras, &c.,.....	89,061	8,671
Brazil,.....	10,893	1,007
Monte Video, &c.,.....	32,176	2,976
Buenos Ayres,.....	16,529	1,510
Chili,.....	636,020	55,984
Africa generally,.....	18,702	1,901
Kamachatka,.....	4,876	487
	<hr/>	<hr/>
	4,782,723	521,117

130 AGRICULTURE AND MANUFACTURES SOUTH AND WEST.

IMPORTS.

Brown Sugar,.....lbs.	182,540,327	Value,.....	\$6,951,371
White Sugar, Clayed, &c.,...	12,690,946	"	968,131
Loaf Sugar,.....	315	"	46
Candy,.....	589	"	59
Other refined,.....	56,856	"	5,026

The fourth was a paper presented by Mr. Benton in 1840, showing

SUGARS IMPORTED FROM 1828 TO 1838.

Years.	Brown.		White, Clayed, &c.		Candy and Loaf.		Other refined.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1828	51,686,955	\$3,081,004	5,249,006	\$465,732	380	\$47	77	\$12
1829	58,597,574	3,218,526	4,709,720	403,880	802	141	525	106
1830	78,576,388	3,985,865	7,906,658	644,477	7,005	571	62	9
1831	98,576,928	4,220,993	10,437,726	689,884	215,739	20,899	775	48
1832	60,117,717	2,536,441	6,334,571	397,247	36,479	2,916	124	15
1833	85,689,044	3,982,877	11,999,088	769,466	46,035	3,480	271	33
1834	107,483,841	5,027,377	7,906,014	510,452	988	127	682	88
1835	111,803,880	5,751,074	14,229,359	1,055,100	1,908	228	186	23
1836	181,243,537	11,623,699	10,182,578	890,805	572	96	650	96
1837	120,416,071	6,118,166	15,723,748	1,084,502	9,899	1,132	43	6
1838	139,200,905	6,466,199	14,678,228	1,120,161	2,948	269	1,608	196

SUGARS EXPORTED.

Years.	Brown.		White, Clayed, &c.		Candy and Loaf.		Other refined.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1828	8,999,992	\$642,262	1,681,140	\$184,571	9,956	\$1,666		
1829	10,643,859	647,796	1,699,619	167,260				
1830	6,676,255	412,355	3,049,527	272,020				
1831	17,297,837	886,564	5,274,579	404,993	4,455	452	4,040	\$327
1832	14,230,070	695,943	3,258,875	233,982	35,650	3,337	12,243	1,244
1833	2,001,424	115,220	4,475,869	294,446	11,131	1,121	130,730	15,595
1834	11,035,926	622,139	2,928,602	212,083	3,919	456	756	112
1835	3,786,017	254,174	3,447,772	306,126			23,687	2,775
1836	30,429,836	2,425,421	3,782,287	378,318	61,124	8,217	219,035	20,822
1837	27,875,456	1,663,573	13,176,577	986,479	16,239	2,246	56,547	5,380
1838	4,503,074	277,198	7,121,250	611,977				

The fifth shows the amount paid in drawback on domestic refined sugar,

Years.	Amount.	Years.	Amount.	Years.	Amount.
1795	\$4,329 12	1810	.....	1825	\$1,612 68
1796	21,098 36	1811	.....	1826	2,637 57
1797	12,796 13	1812	.....	1827	5,834 36
1798	3,279 80	1813	.....	1828	2,045 48
1799	4,984 42	1814	.....	1829	45,092 56
1800	5,783 86	1815	.....	1830	84,230 48
1801	9,432 58	1816	.....	1831	63,688 65
1802	16,729 28	1817	\$6,091 68	1832	49,840 65
1803	6,823 48	1818	15,419 08	1833	34,643 80
1804	441 50	1819	838 20	1834	162,086 05
1805	.....	1820	879 84	1835	49,829 50
1806	181 69	1821	5,362 80	1836	83,768 60
1807	.....	1822	3,560 95	1837	100,642 70
1808	.....	1823	2,281 68	1838	145,494 30
1809	.....	1824	2,286 12		

The sixth is Mr. Woodbury's Report, showing the imports and exports of sugar

SUGAR IMPORTED YEAR ENDING SEPT. 30, 1840.

Brown Sugar,.....	107,069,013 lbs.	Foreign cost,.....	\$4,708,163
White, Clayed, &c.,.....	12,984,610 "	" " "	838,341
Loaf, Candy, and other refined,.....	1,623 "	" " "	167

SUGAR EXPORTED SAME YEAR.

Brown,.....	9,798,904	Value,.....	\$548,858
White, Clayed, &c.,.....	9,981,640	"	799,518
Domestic Refined,.....	10,381,485	"	1,189,766

The *Seventh* is a reply by the Northern sugar refiners to the above papers, &c., in which they say:

In a speech of the Honorable Mr. Benton, made in that body on the 16th March, we find it stated, that in the years 1837 and 1838, "the whole revenue derived from the importation of brown sugar in the United States, and an additional sum besides, was delivered over, gratuitously, to a few dozen sugar-refiners."

We are altogether at a loss to understand upon what authority this statement was made, as, upon looking at the public documents, we find the following to be the true account of the matter:

In document No. 372, transmitted by the Secretary of the Treasury to the 25th Congress, 2d session, we find it stated:

That in the year ending 1837, 30th September, there were imported into the United States of brown sugar..... 130,416,071 lbs.
During said year there were exported of brown sugar..... 26,708,030 "

Leaving of brown sugar to pay duty..... 93,708,041 "
Which, at the duty of \$2.23 paid that year, amounts to..... \$2,063,655 71
From which deduct the amount of drawback paid that year on 2,012,854 lbs. refined sugar exported, at 5 cents per pound..... 100,642 70

Leaves a net revenue on brown sugar accruing to the United States in 1837, of..... \$1,963,013 01

In a similar document from the Secretary of the Treasury, No. 253, transmitted to the 25th Congress, 3d session, it is stated:

That in the year ending 1838, 30th September, there were imported into the United States of brown sugar..... 139,200,905 lbs.
During said year there were exported of brown sugar..... 4,328,687 "

Leaving of brown sugar to pay duty..... 134,872,218 "
Which, at \$2.23 duty paid that year, amounts to the sum of.... \$2,734,365 96
From which deduct the amount of drawback paid that year on 2,909,686 lbs. of refined sugar exported, at 5 cents per pound.. 145,494 30

Leaves a net revenue on brown sugar accruing to the United States in 1838, of..... \$2,588,871 66

Thus, in the years 1837 and 1838, the net revenue accruing to the United States, after deducting all the refined sugar exported, on which drawback was paid, amounted to the sum of \$4,551,884 67.

This will show you, sir, unless we ourselves are in great error, that Mr. Benton's information must have been entirely incorrect.

The *Eighth* is a memorial signed by several hundred sugar planters of Louisiana, dated in 1842, praying an increase of duties on imported sugar. We make this extract:

That the number of sugar estates, in 1828, amounted to 308.

That from 1828 to 1833, the number gradually increased to 691.

That under the tariff of 1816, the State of Louisiana was already supplying one half of the sugars required for the consumption of the United States, and was bidding fair soon to meet the entire consumption.

That before the last 363 estates could be brought into full operation, the tariff of 1833 was adopted. That 156 estates have already been compelled to abandon their sugar works under the effects of this act. That its further action cannot fail to annihilate this important branch of national industry. That there is no branch of industry in our country which is not directly or indirectly benefited by a tariff in-tentionally laid.

That at a low estimate, the 525 estates yet in operation expend annually \$2,000,000 for repairs of 525 engines and mills, and for castings, clothing, shoes, hats, implements of husbandry, carts and wheels, nails, corn and flour, beef, pork, fish, tobacco, whiskey, hoops, mules, horses and cattle, &c., &c., the product of Eastern and Western States, and for overseers and engineers.

Whereby it is seen that mechanics, manufacturers, and agriculturists, throughout the Union, are directly interested, to the amount of two millions of dollars per annum, in the sugar industry.

That the last crop of sugar is estimated at 80,000 hogsheads, or about 80,000,000 of pounds and 4,600,000 gallons, of molasses; that prices this year are hardly averaging three cents for sugars, and twelve cents for molasses, which represent a gross amount of \$2,880,000, of which, as above stated, \$2,000,000 are required for the working expenses during the year, and go to other branches of industry, while the proprietors will only receive \$880,000, being 1.69 per cent. on the capital invested of \$52,000,000.

THE EARLY HISTORY OF SUGAR.

The following communication was sent us by A. G. Summer, Esq., of South Carolina, received by him from his brother, Thomas J. Summer, member of the Literary and Scientific Society of Giesin, and who is pursuing Agricultural Chemistry under Liebig, Rosa and Mulder.

Dr. Weill says, that as far as he has observed there is no allusion made to sugar in the Old Testament. The conquests of Alexander seem to have opened its discovery to the Western world. Strabo says that Nearehus, his admiral, found sugar cane in the East Indies, but does not say that even art was used to reduce the juice of this plant to gum. Strabo also quotes Eratosthenes, as speaking of roots of large reeds in India, which were of sweet taste, both raw and when boiled. Theophrastus, we next find, had some knowledge of sugar, for in naming the different kinds of honey, he mentions one found in reeds. Varro, in a fragment quoted by Isidorus, alludes to this substance, when he says it was as a fluid, pressed out from reeds of a large size, which was sweeter than honey. Dioscorides, speaking of the different kinds of honey, says that there is one sort, in a concrete state, called *Saccharon*, which is found in the reeds of India and Arabia Felix. This, he adds, has the appearance of salt; and, like that, is bitter when chewed in the mouth. It is beneficial to the bowels and stomach, if taken dissolved in water; and is also useful in diseases of the bladder and kidneys. Being sprinkled on the eye, it removes those filmy substances that obscure the sight. This I regard as the first account extant of the medical properties of sugar.

Galen was well acquainted with the use of sugar, and describes it similarly with the above, as a kind of honey, called *Sacchar*, that came from India and Arabia Felix, and concreted in reeds. He says it is less sweet than honey, but of similar qualities, as detergent, desiccative, and digerent. He observes the difference, however, that sugar is not like some honey, injurious to the stomach, or productive of thirst, but on the contrary, always occasions internal irritation.

In the third book of Galen, treating of medicines easily procured, sugar is repeatedly prescribed.

Lucan speaks of the sweet juice drawn from reeds, which constituted a drink for the people of India. Seneca, speaks also of an oily sweet juice in reeds. Pliny mentions it as *Saccaron*, and says it was brought from Arabia and India; but the best came from the latter country. He describes it as a kind of honey obtained from reeds, of a white color resembling gum, brittle when pressed by the teeth, and found in pieces of the size of a hazelnut. It was used in medicine only.

Salmasius, in his *Pliniana Exercitationes*, says Pliny relates upon the authority of Juba the historian, that some reeds grew in the Fortunate Islands, which increased to the size of trees, and yielded a liquor that was sweet and agreeable to the palate. Though he implies that this plant was the sugar cane, I think the plant intended by Pliny was some one of the milk producing trees of the African tropics. Before this period we had no account of the artificial boiling, or the application of the evaporating process to sugar, but Statius alludes to the boiling of sugar, and the passage is referred to in the celebrated *Thesaurus* of Stephens.

Arrian, in his *Periplus of the Red Sea*, speaks of the honey of reeds, called *Sacchar*, as one of the articles of trade between Ariac and Barygaza, two places of the hither India, and of some parts of the Red Sea. *Ælian*, in his *Natural*

a people who lived near the Ganges. Tertullian also speaks of sugar in his book *De Judicio Dei*, as a kind of honey procured from canes. Alexander Aphrodisæus states, that sugar was regarded in his time as an Indian production. What the Indians called sugar then, was a concretion of honey, in reeds resembling crystals of salt, of a white color, brittle, and possessing a detergent and purgative power like honey; and which being boiled in the same manner as honey, is rendered less purgative, without impairing its nutritive quality.

Paulus Ægineta, makes the first mention of sugar growing in Europe; and also speaks of its being brought from Arabia Felix; the latter he seemed to think less sweet than the sugar raised in Europe, and neither injurious to the stomach nor causing thirst, as the European sugar was apt to do. I regret that I can't fix the date at which this author wrote. Achmet, an Eastern writer who is said to have lived about the year 830, speaks frequently of sugar as common in his time. Avicenna, the Arab physician, also speaks of sugar as being the produce of reeds, which he calls *tabixet* or *tabarzel*.

It does not appear that down to this time the world was acquainted with the method of preparing sugar, by boiling down the juice of the canes to a consistence. It is also thought that the sugar they had, was not derived from the sugar cane now cultivated, but from a coarser and larger variety, known to the ancient world, and called by Avicenna, *Tabarzel*, which is the *arundo arbor* of Casper Bauhen, the *Sacchar Mamba* of later authors and the *Arundo Bambos*, of Linnæus. This yields, even at the present day, a sweet, milky juice, which freely crystallizes in the sun's rays, and resembles sugar both in taste and appearance. It is similar if not identical with Gum Maana, and I think we must date the commencement of the cultivation of sugar as we know it with the Crusaders. This period opened to the world the riches of the "far orient." Even the "Golden Fleece" had stopped at Colchis, but it was for the Crusaders to transport useful arts, tastes, refinement, and even disease from the Holy Land, to all portions of Central and Western Europe. In the history of those days, romance and chivalry held a sway which almost obscures the details of those useful arts which went home with the mail-clad soldiers of the Holy Sepulchre. But the student, by groping in the massive rubbish of centuries, if he perseveres, can still now and then, place his finger on a point in the progress of any art which existed at that time, and in searching for these points is often rewarded by discoveries which show the inception of wonderful events which have since transpired. I turned my inquiries from the tomes of the times preceding the Crusaders to the historians of those infatuated expeditions, and in the *Historia Hierosolymitana* found that the Crusaders discovered in Syria certain reeds called *Canno-melcs*, of which a kind of wild honey was made. Albertus Agnensis, writing about the same period, says "that the Crusaders found sweet honeyed reeds in great quantities in the meadows about Tripoli, in Syria, which reeds were called *Zucra*. These reeds were sucked by them, and they were much pleased with their sweet taste, with which they could be scarcely satisfied. This plant is cultivated with great labor of the husbandman every year. At the time of harvest, they bruise it when ripe in mortars; and set the strained juice in vessels till it is concentered in the form of snow, or white salt. This, when scraped, they mix with bread, or rub it with water, and take it as potage; and it is to them more wholesome and pleasing than the honey of bees. The people who were engaged in the sieges of Albaria Marra and Archas, suffered dreadful hunger, and were much refreshed thereby." He also mentions in his account of the reign of Baldwin, that eleven camels, laden with sugar, were captured by the Crusaders, and from this we infer it was then made in considerable quantities.

In the works of Jacobus de Vitriacco, is to be found the first account of the employment of heat or fire in the making of sugar, for he says, "that in Syria reeds grow that are full of honey, or a sweet juice, which by the pressure of a screw engine, and concentered by fire, becomes sugar. Wilhelmus Tyrensis, about the same period speaks of "sugar as made in the neighborhood of Tyre, and sent to the farthest ports of the world."

Marinus Sanatus says, that in the countries subject to the Sultan, sugar was produced in large quantities, and that it was likewise made in Cyprus, Rhodes, Amorea, Malta, Sicily, and other places belonging to Christians.

Last of all, Hugo Falcandus, who wrote in the days of Frederic Barbarossa, speaks of sugar being produced in great quantities in Sicily, where it was used in two states; one, when the juice was boiled down to the consistence of honey, the other when it was boiled still further down so as to form a solid body of sugar.

Here, when revolution and the turbulent spirit of Frederic shook the whole of Europe, was consummated that skill which has since furnished to our sugar regions a basis for the wonderful chemical discoveries which have engaged their attention up to the present time. How much the art of manufacturing sugar is yet to be improved can only be imagined, when we review the events which have accelerated its production since the twelfth century. I feel much satisfaction in addressing these historical transcripts to one of my fellow-citizens who is largely interested in the culture of sugar. Depend upon it, my dear sir, the only thing the sugar planters should call to their support is the aid of science. With this, and the healthy energy of American enterprise, they will outstrip the world in the production of every staple which engages their attention and occupies their labor.

In reply to interrogatories made by us, we received the following interesting communications. We do not think the writers intended them for publication in their present state, nor was it our intention so to have given them. But, having failed to obtain all the information desired for a special end, we were forced to abandon it for the present. We have supposed the publication of the letters would subserve the interests of our sugar planters, and trust that we shall be excused the liberties taken.

1. FROM THE HON. JOEL R. POINSETT.

June 25, 1847.

Sugar is a fruitful subject. Of course you are aware of the vast advantage possessed over us in the West Indies, where, from the cane maturing, the juice is many times stronger than in our colder region. Within the tropics it takes eighteen months to mature, and I think the comparative strength of the juice with that raised in colder climates, is as eight to one. Sugar is cultivated successfully in Peru, and constitutes the chief article of export. It is sent to Chili, in exchange for flour. The sugar of Peru is clayed, and not well refined.

In Mexico it is raised in the Tierra Templada and Tierra Caliente; chiefly in the valleys of Cuatla and Cuemavaca, about twenty leagues from the capital; although it might be cultivated to almost any extent, as the soil and climate of many parts of Mexico are peculiarly favorable to its production. Indeed, it was cultivated formerly much more extensively in the neighborhood of the coast, where the lands were more productive than those even of the island of Cuba, and the juice of the cane much richer in saccharine matter; but the works were destroyed on most of the estates during the civil wars of the revolution, and they are too costly to be renewed. The consumption of sugar in the country is enormous, and the quantity made barely suffices for home use.

If Mexico is to be Americanized, and sugar raised there to be brought into competition with that of Louisiana, the latter will have to abandon that source of profitable culture. An experiment, recorded by Humboldt, gave double the quantity of sugar raised on the coast of Mexico to that raised on the same area in Cuba. "A hectare of the best land in Vera Cruz produces 5,600 pounds of raw sugar, or exactly double the quantity obtained from the same space of ground in Cuba." The sugar used in Mexico, like that of Peru, is badly refined and has a coarse appearance. The cane is planted closer together than is customary in the English West India islands; but they rest their lands, planting only one fourth each year—a system that maintains their fertility unimpaired.

I am, dear sir, very truly yours.

J. D. B. DE BOW, Esq., *Charleston, S. C.*

2. FROM A PLANTER IN LOUISIANA.

Elm Hall, June 24, 1847.

Dear Sir—I am in receipt of your favor of the 14th inst., asking for information in regard to the culture, manufacture and trade of and in sugar; and should feel myself honored in being able to contribute anything to the general stock of knowledge in this highly important interest. Yet, although my entire energies have been devoted, for the last eighteen years, to the "culture and manufacture" of the sugar-cane, I have not the vanity to think myself capable of teaching others; and feel that we could have no more valuable boon, than a good scientific treatise on the various parts of the subject you propose. However, if I have been able to make any advance in any one branch of the subject, it has been in the cultivation. I believe the planters of the State are indebted to me for the truly philosophical mode of giving distance to cane, viz.: by planting alternate rows of corn, or

two rows of cane and one of corn, &c., thereby allowing space for the sun and air to reach the stocks—of course producing a richer and more perfect cane-juice, by ripening sooner and more thoroughly. The above mode of planting is calculated for new land, that would grow corn too large and rank to ripen when planted the ordinary distance apart; but the same principle holds good on any quality of land, viz.: plenty of distance to admit sun and air to the stock.

It would take "a book" to go into all the particulars and reasons for the various items appertaining to the proper cultivation of a crop of cane; and, I presume, you mainly desire immutable truths and principles laid down, by which practice must be guided, if success is expected. My own experience confirms me in the following truths, to be acted on before any certainty of success can be calculated on in planting cane, viz.: 1st. The land must be drained thoroughly, by running parallel ditches from the front to extreme rear (or until a sufficient fall can be had to drain the cultivated land), with a distance apart of not more than a half to an acre, i.e. thirty-five to seventy yards; and of a depth of not less than three feet. 2dly. The land must be broken up deeply, say ten inches or a foot, early in January, or, which is better, in the fall previous to planting, and replowed until the soil is perfectly pulverized. 3dly. During the cultivation, the cane is to be plowed frequently, *when not too wet*, until large enough to receive the final hilling; and if the proper distances (viz.: not less than eight feet between the rows) are given, the crop is insured, so far as the planter has it in his power. When the land becomes worn, it must, of course, be manured in some way—planting cow peas, &c. &c.

1st. In answer to the estimation, "reports of the crops for years past," we have very little faith. Errors have come under our own observation; and we have believed the estimate, particularly of the crop of 1845-6, was much too nigh.

2d. There has been put in operation some new plantations for sugar, but mostly small, since the last report; and still more are preparing to go into operation the present fall. 3d. How many I am unable to say.

4th. The crop of 1846-7, just sold, we have in this parish estimated at 9,500 hhds.

5th. I must say that I do not feel able to throw any light upon the manufacture of cane-juice into sugar; and sincerely hope you may be able to give us *practical* knowledge, which I think is greatly needed generally.

3. FROM A CAROLINA FARMER.

LITTLE RIVER, S. C., HOREY DISTRICT, }
ALL-SAINTS PARISH, July 11, 1847. }

Dear Sir—Your favor, dated at New Orleans, June 6th, to Mr. James Perrel, at Cheraw, came to hand, and contents noted. I made about 200 lbs. sugar last season, from about the eighth part of an acre of land; which sugar was well grained, and as handsome as I ever saw, and the best tasted. I have about one acre and a half of cane planted this year; but a short time since some cattle got into it and cropped it down, which I fear will injure it. One owning good, suitable land, could do a very good business at sugar-making here.

I am, very respectfully, yours.

4. FROM AN EXTENSIVE PLANTER ON RED RIVER, LOUISIANA.

To J. D. B. De Bow, Esq.

HUNTSVILLE, ALA., July 16, 1847.

Nothing would give me more pleasure than to afford you all the information, so far as my limited knowledge yet extends, as to what has been done last season, and what is in contemplation this, in the new sugar parishes of Rapides and Natchitoches, which in the course of time, I venture to assert, will be among the most important of the sugar regions. The present season will be the great trial one, and I should not be astonished that some 5000 hhds. will be sent from Red River. I have no question, that if the caterpillar should appear in our region another year, Red River will send, in the course of three or four years, fully 20,000 hhds. to the New Orleans market. In a few days I shall again have the pleasure to address you. With great regard, your obedient servant.

No 2.—PRATTSVILLE, ALABAMA.

In other pages of this Review we have spoken of the progress made in manufactures by the people of Alabama.

A few weeks ago we had the pleasure of passing through their State, and of visiting the remarkable town of Prattville, a description of which was promised. For this we have the material, its enterprising proprietor having appropriated to us several hours in various explanations throughout his immense establishment.

Daniel Pratt is a remarkable instance of that success which energy, enterprise and worth of character, will everywhere secure.

He was born in the Northern States, and left Lowell for Savannah, Georgia, where he became engaged in building bridges, but without much success. He removed thence to Alabama, with no other effects than a few chattels, but blessed with an energy which was indeed everything to him in his slender fortunes. We heard an anecdote of his industry at this period, in being discovered before the light of day with a supply of corn, which had been procured for his family. But difficulties such as these were nothing to so dauntless a spirit.

Mr. Pratt's earliest business in Alabama, was the construction, on a limited scale, of cotton gins. This was about 1833 or 1834. His first limited purchase was the privilege of water power. His business gradually progressed in extent and profit. The present site of Prattville was bought for \$20 000 from Joseph May, and contains 2,000 acres. The purchase money was soon realized from the sale of gins, and promptly paid. At this period an old saw-mill and a few indifferent huts were all that existed on the place.

Prattville is situated 12 miles north-west from Montgomery, on the west side of the Alabama river—4 miles from the town of Washington, and 8 miles from Robinson Springs, a fashionable watering-place. It is on Autauga Creek, from which the county takes its name. "Autauga" in the Indian language signifies "Corn dumpling." Autauga creek is a bold, clear stream, supported by beautiful springs which rise about 15 miles from its mouth. It is the most uniform stream in the world—neither depressed by a protracted drought, nor much swollen by heavy rains. It is consequently one of the best character for manufactories, for it can always be depended upon. The fall is pretty rapid, and the water can be worked over every half mile. The banks are bold, and the pine forest making up to the edge, so that there is no swamp near the creek. The woods abound with pine timber, the country healthy, the water good, navigation convenient, and every thing is favorable for the erection of extensive manufactories. The bed of Autauga creek is of a sand stone generally reaching across—hence the foundation is superior for mills.

Mr. Pratt's fortunes began to advance from this purchase. His improvements have been extraordinary, and one cannot realize they have been made in so short a period, save by the wand of an enchantress. He has also an interest in a large business house in New Orleans.

The immense establishments at this place include a large cotton gin manufactory, which completes 10 to 12 gins per week. They are shipped to New Orleans and Mobile, for the supply of Alabama, Louisiana, Mississippi and Arkansas. The gins contain fifty saws each, of the value of \$3 to \$4 a saw. The steel plates for saws are imported from the North, but all the rest of the machinery is manufactured upon the place, in the extensive, sawing, planing, mortising, grooving and other departments, conducted by water power. Several saw-mills are employed in getting out necessary lumber for buildings, &c. The Alabama iron we observed in use, in casting railroad axles, some of which it appears are contracted for in Prattville.

The cotton manufacturing establishment is a new addition to the premises. It has the power of 3,000 spindles, all of which were not adjusted when we were there. The cost of the machinery for this power is estimated by Mr. Pratt at \$40,000, or over \$13 the spindle. No part of this cotton establishment has been in operation six months. The persons employed are taken from the country around, men, women and children—families being preferred—who are furnished with houses at small rent and obtain their provisions at the shops and neighboring farms. Average wages \$8 per month. There is no difficulty in getting operatives, who soon become expert in the business. Negroes have not been employed from the abundance of other labor.

The Prattville Factory, when in operation, will consume 1500 bales of cotton annually. The cotton is bought in the neighborhood. The cloth is of a coarse

quality, for which a ready market is always at hand, at 10c. the yard, containing one half pound cotton. Purchases of cotton in the last season were made at 9½@ 10c.

Mr. Pratt's enterprise displays itself in every manner. The town contains two school-houses for the children of operatives, and two churches, Methodist and Baptist; two or three stores, a resident physician—but we believe not yet a lawyer—bad taste! A newspaper was seriously thought of when we were there. There are upwards of one hundred and fifty to two hundred hands employed, who receive their wages monthly. Their appearance is healthy and happy. Upward of forty small buildings have been constructed by the proprietor.

The private mansion at Prattsville is a splendid structure, with beautiful neighboring grounds. A fountain plays, and various shrubbery is scattered around. The prospect from the building is imposing.

We have not mentioned half the things at Prattsville worthy of admiration—the neatness, the system, the order, the extent. A single power working everything—corn, flour, cotton, saw, and every other mill—the appended blacksmithing and carriage establishments, etc., etc.

In manners the proprietor is unostentatious—simple and republican in his course of life. His energies are indomitable, and his industry knows no impediment or regards no toil. Night and day this man of enterprise may be found at his post. The interior of his mansion is adorned with a large hall and gallery of paintings. Thus are not the arts forgotten. A splendid picture of Rome and St. Peters adorns the hall, executed by our townsman, Geo. Cook, of New Orleans. Mr. Clay appears as large as life, and we understand that Mr. Calhoun and Mr. Webster will be procured to adorn and illustrate in the same style the gallery.

Prattsville is capable of employing with its water power, 30 000 spindles, and according to the estimate of its proprietor, \$1 000,000 will create there a town of 3500 inhabitants and give employment to them.

We take leave of this interesting place with regret, our memories of it are so lively. May every fortune attend it in the future! We hope to see it for the South a great manufacturing Lowell, and to see many such Lowells among us. Here is an instance already of an immense fortune amassed by industry and energy in scarce the third of a generation. Who will imitate the example?*

COMMERCIAL AND AGRICULTURAL STATISTICS.

MAGNETIC TELEGRAPH EXTENSION IN THE UNITED STATES.

It is common-place in our era of the World's history to speak of the advances of science; and we shall not now fall into the error.

During our excursions at the North, we took occasion to examine into the rationale of this mysterious operator—the Telegraph. The agent in New York manifested particular pleasure in introducing us to everything; at which we were determined to manifest as little surprise as possible. In fact, the best philosophy now is, to be surprised at nothing.

We explained the telegraph instrument fully in our number for February 1846; now for its alphabet.

TELEGRAPHIC ALPHABET.

— A — B — C — D — E — F — G — H — I
 — J — K — L — M — N — O — P — Q
 — R — S — T — U — V — W — X — Y — Z
 — & — 1 — 2 — 3 — 4 — 5 — 6
 — 7 — 8 — 9 — 0

or if we should say,

COMMERCE IS KING,

we would simply write,

and there it is, as plain as A B C.

* The names of the publishers of this sketch we are indebted to Col. Pickett, of Al-

TELEGRAPHIC LINES CONSTRUCTED AND IN OPERATION.

	Miles.
From New York to Boston,.....	250
" " " Albany and Buffalo,	510
" " " Philadelphia, Baltimore, and Washington,	240
" Washington to Fredericksburg and Richmond,	170
" Philadelphia to Pittsburg and Zanesville,.....	465
" " " Pottsville,.....	100
" Buffalo to Montreal (Canada), via. Lockport and Toronto, ..	650
" Auburn, Ithaca and Elmira, N. Y.,.....	60
" Syracuse and Oswego (side lines),	35
" Boston to Portland (Maine),.....	190
" New York to Fire Island (offing),.....	90
Total,	2,690

LINES UNDER CONTRACT AND IN PROCESS.

	Miles.
From Richmond to New Orleans (about)	1050
" New Orleans, Cincinnati to Columbus,.....	1200
" Buffalo to Milwaukee,	700
" Quebec to Halifax,.....	750
" " " Montreal,.....	180
" Troy to Montreal,.....	180
" Rochester to Dansville,.....	47
" " " Medina,.....	42
" Hamilton (Canada) to Detroit,.....	180
" Portland (Maine) to Halifax,.....	550
Total,	4,833

We are indebted to the polite agent of the Boston line, in New York, for many interesting particulars:

August 7th, a communication was received in New York from Montreal, a distance of over 1100 miles—was delivered, an answer obtained, and its receipt acknowledged by the Montreal operator in 30 minutes from the time it was received in New York.

On the New York and Boston line, a communication was sent from New York to Boston, ordering the sale of 50 shares of railroad stock. It was delivered, the sale made, and the party ordering the sale had returns of sale and price at which it was sold placed in his hands in 12 minutes from the time he left his order at the New York office!!

The books of the companies and statements of the parties to the operations, confirm the above almost incredible instances of the facilities for dispatch in business by telegraph. The amount of business done on all these lines is large, and continually increasing.

On the New York and Boston line, about 100 communications per day are sent each way, between New York and Boston; and from 30 to 50 with the way stations, aside from the lengthy newspaper dispatches.

Communications are sent and received as rapidly as a quick penman can copy; and a system of abbreviations introduced on some of the lines, enables the operator to write faster than any man can copy.

Every day affords instances of the advantages which our business men derive from the use of the telegraph. Operations are made in *one day* with its aid, by repeated communications, which could not be done in from two to four weeks by mail—enabling them to make purchases and sales which otherwise would be of no benefit to them, in consequence of length of time consumed in negotiation.

On those lines constructed of the large iron wire (now being generally introduced on all lines), communication is rendered as reliable as by the mails; the wires being strong enough to withstand the elements, and only failing when malice is used, or some unavoidable accident occurs.

The Buffalo and New York line is substituting iron for copper wire, it having been originally constructed of copper; and in a few months they will have two iron wires, weighing 260 pounds to the mile, from New York to Buffalo.

The New York and Boston line is constructed of iron wire, weighing 330 pounds

to the mile; and they will have two of them working through in a few days—the amount of business done on that line requiring more than one wire.

The New York, Philadelphia and Washington line is constructed of iron wire, three cords twisted together, weighing about 250 pounds to the mile. Two wires are used from New York to Baltimore on this line.

It is a source of no little consolation to us, away at the distant South, that our northern friends are not to have all the best features of the lightning to themselves, and little of the worse. A great *Southern line to New Orleans* is now in process of construction. In our travels we found the posts wherever we passed. The capital of the company from Washington to New Orleans is \$375,000, the stock of which is all taken—the distance being 1340 miles. That portion of the line between Mobile and New Orleans, it is expected, will be in operation in September, and the whole distance through by 1st January, 1848. The stations will be Washington, Georgetown, Alexandria, Fredericksburg, Richmond, Petersburg, Raleigh, Fayetteville, Cheraw, Camden, Columbia, Charleston, Augusta, Macon, Columbus, Franklin, Montgomery, Mobile, New Orleans.

The Directors are Richard Smith, Raleigh; Major McRea, Fayetteville; John M. Dessausure, Camden; Dr. Sill, Columbia; ———, Charleston; Edward Thomas, Augusta; ———, Savannah; Mr. Alexander, Macon; John G. Winter, Columbus; Mr. Pollard, Montgomery; Mr. Pope, Mobile; H. C. Cammack, W. L. Hodge, J. B. Byrne, H. W. Hill, Wm. Mure, New Orleans.

Trustees.—B. B. French, W. W. Seaton, D. Gold, Washington; N. W. Hill, New Orleans.

We give the following table of prices upon the two most important lines, which are much higher than they can be very soon made:

PRICES OF NEW YORK AND BOSTON TELEGRAPH.

FROM BOSTON, or from NEW YORK, to WORCESTER, SPRINGFIELD, HARTFORD or NEW HAVEN, or from either station intermediate of BOSTON and NEW YORK, to any other station of the line, 25 cts. for the first *ten words or numbers*, exclusive of address and signature; and *two cents* for every additional word or number. From Boston to New York, or New York to Boston, FIFTY CENTS for the *first ten words or numbers*, and THREE CENTS for every additional word or number.

PRICES OF THE NEW YORK AND WASHINGTON TELEGRAPH LINE.

For every *ten words*, not exceeding *one hundred*, exclusive of the address and directions:

From New York to Philadelphia,.....	25
“ “ “ Wilmington,.....	35
“ “ “ Baltimore,.....	50
“ “ “ Washington,.....	50
“ Philadelphia to Wilmington,.....	10
“ “ “ Baltimore,.....	25
“ “ “ Washington,.....	25
“ Wilmington “ Baltimore,.....	20
“ “ “ Washington,.....	25
“ Baltimore “ Washington,.....	—

When a communication exceeds that number, the price on all words exceeding *one hundred*, will be reduced *one-third*.

Communications destined for any place beyond the termination of the Telegraph, will be faithfully written out at the last station and put into the mail.

All communications must be pre-paid at the station from which they are transmitted, respectively.

THE PRACTICAL PURSUITS IN UNIVERSITIES.

Abbott Lawrence's Endowment.

WHILE we were preparing and contributing to the press at one extremity of the Union a paper showing the importance of introducing *STATISTICS* and *COMMERCE* into the new University of Louisiana (see Commercial Review, June, 1847), the Hon. Abbott Lawrence, the magnificent merchant prince, at the other extremity of the Union was engaged almost at the very moment in planning and devising a Department in Harvard, addressed to the other practical pursuits of life, viz.,

common wants suggest common remedies, and hand in hand together great improvements are carried out, blessing mankind in every section of the Union.

Without adverting further to the **COMMERCIAL PROFESSORSHIP** at this moment, we will say that it has long been a favorite idea with us, as many in Louisiana will remember. We shall take occasion to present its merits more than we have done in the hurried communication already made. We shall be able to furnish many new and striking facts, the results of investigation and study during our northern tour. What is to us a most delightful satisfaction at this moment is—that a gentleman in Louisiana whose name is identified with enterprise and worth, has promised to take this matter in hand, and secure the early establishment of this statistical department to the University. It is a matter about which we are sanguine. The professorship must and will be established.

But to return to Mr. Lawrence. His donation to Harvard of fifty thousand dollars is one of the most liberal upon record, and does great honor to our country.

We introduce from his letter to the Hon. Samuel A. Elliott, the following passage:

MY DEAR SIR—I have more than once conversed with you upon the subject of establishing a school for the purpose of teaching the practical sciences in this city or neighborhood, and was gratified when I learned from you that the government of Harvard University had determined to establish such a school in Cambridge, and that a Professor had been appointed who is eminent in the science of Chemistry, and who is to be supported on the foundation created by the munificence of the late Count Rumford.

For several years I have seen and felt the pressing want in our community (and in fact in the whole country) of an increased number of men educated in the practical sciences. Elementary education appears to be well provided for in Massachusetts. There is, however, a deficiency in the means for higher education in certain branches of knowledge. For an early classical education we have our schools and colleges. From thence the special schools of Theology, Law, Medicine and Surgery, receive the young men destined to those professions; and those who look to commerce as their employment, pass to the counting-house or the ocean. But where can we send those who intend to devote themselves to the practical applications of science? How educate our Engineers, our Miners, Machinists and Mechanics? Our country abounds in men of action. Hard hands are ready to work upon our hard materials; and where shall sagacious heads be taught to direct those hands?

Inventive men laboriously reinvent what has been produced before. Ignorant men fight against the laws of nature with a vain energy, and purchase their experience at great cost. Why should not all these start where their predecessors ended, and not where they began? Education can enable them to do so. The application of science to the useful arts has changed, in the last half century, the condition and relations of the world. It seems to me that we have been somewhat neglectful in the cultivation and encouragement of the scientific portion of our national economy.

THE PUBLISHING BUSINESS.

It is scarcely conceivable how important this branch of **BOOK TRADE** has become in our country, and the immense capital which is required to sustain it. To examine through the mammoth establishments at the North, constitutes an epoch in one's life, such are the emotions which they awaken; particularly the Harpers, Wiley & Putnam, Appleton, of New York; Carey & Hart, Philadelphia, etc., etc. One scarcely can conceive what becomes of the immense quantity of material which is daily discharged from the press. Regarding the whole printing art in New York—its branches of type setting, hand and power presses, stereotyping, binding, wood cutting, engraving, lithographing—we are amazed at its extent. Such prodigious heaps of books are dispatched every hour, for every quarter of the Union and into Canada. What could be more interesting than the statistics of these, and biographical sketches of the leading men who are engaged?

A friend in New York, who has long been collecting and will soon publish, perhaps, a work upon this curious subject, has promised to contribute for our Review a few pages on this head, which will doubtless excite much attention.

For the present month, we shall notice but casually the progress of the trade, but will, in other numbers, give it a leading head and place in the Review.

1. **THE COMPLETE ANGLER**; or, the Contemplative Man's Recreation: with biographical preface and copious notes, by the American Editor—in two parts. New York, Wiley & Putnam. 1847.

This is the first American edition of a book whose quaint interest has been commemorated time out of mind. Everybody has heard of Isaac Walton, whose piscatory reputation has given character to the sport, and is cherished with a kind of pious regard by every devotee. And, in good sooth, there is enough in these goodly volumes, which make a part of the choice reading of Messrs. Wiley & Putnam, to gladden the hearts of all true sportsmen. The novelty of the matter, and the style, the curious details, the lively sketchings, the antiquarian researches, which abound upon every page, might indeed awaken some "generous feeling" in the most dull and plodding, and set us lorthwith into grinding down our scythes and plowshares into—fish-hooks.

To these rich volumes Mr. Charles Cotton had added a goodly number of instructions in trout angling, &c.; and the American editor has appended a vast collection of notes and illustrations, a curious biographical preface of fishing and fishing-books, from the earliest antiquity until the time of Walton, and a notice of Cotton and his writings. Nor is this all; the Appendix is a perfect curiosity in itself—equal to Burton's immortal Anatomy in interest—including illustrative ballads, music, papers on American fishing, and the most complete *Catalogue of books on Angling, &c.* ever published; including—who would deem it possible!—some forty pages of books, in all countries and times! Who is sportsman enough to collect this extraordinary library?

Our meagre notice of this rare work may well be concluded by an extract from Charles Lamb's letter to Coleridge: "Among all your quaint readings, did you ever light upon Walton's Complete Angler? I asked you this question once before; it breathes the very spirit of innocence, purity, and simplicity of heart; there are many choice o'd verses interspersed in it; it would sweeten a man's temper at any time to read it. It would Christianize every discordant, angry passion."

2. **OMOO: A Narrative of Adventures in the South Seas**, by Herman Melville, author of *Typee*. 2 vols. 1847. This delightful work, from the press of the Messrs. Harpers, occupies ground of classic interest and romance. Some of the sea scenes are inimitable. The sailor's life and adventures are all portrayed with lively pen. We follow the author with fresh delight in every new scene, in parts almost unknown—Taboo, Tamai, Tahiti, and Polynesia—so vivid and graphic are all the delineations.

3. **CHAMBERS' MISCELLANY of Useful and Entertaining Knowledge**, No. 1. 1847. Messrs. Gould, Kendall & Lincoln, of Boston, announce their intended publication of this valuable and popular work, in thirty numbers, each constituting a separate volume of itself, whereof the one before us is the first. The extraordinary popularity and success of the *Cyclopædia of English Literature*, from the same source, induces the present publication. We have no doubt it will be received with keen interest everywhere. The first number, among other instructive sketches, contains a biography of Louis Philippe, and an admirable story of Colibri, giving his origin, early struggles, and rise in fortunes. The tendency of all the sketches is moral and instructive.

4. **CHAPMAN'S AMERICAN DRAWING-BOOK**, No. 1. New York: J. S. Redfield. The work sets out with the maxim, "Any one who can learn to write can learn to draw;" which, no doubt, has some share of truth in it, inasmuch as a large proportion of mankind find it impossible to "learn to write," judging from the execrable scrawls they perpetrate. Mr. Chapman's Drawing-Book is admirably executed, in paper, drawings, typography, and delineation. If the art can be made plain, no better instructor could be desired.

5. **HUNT'S MERCHANTS' MAGAZINE**, for August. This eminently valuable work contains its usual quantum of statistics. Each publication constitutes a part of a great whole, and we imagine no enterprising merchant would be without such a library of information. Statistics cannot be rated too high. Hitherto they have not been sufficiently appreciated in our country. Now, however, the case is altered. This information for every section of the Union must and will be had.

6. **GAYARRÉ'S HISTORY OF LOUISIANA**; Mrs. Stewart's translation. We have already announced this forthcoming work in a previous page of our number, and shall, in our next, offer additional extracts from some of the last chapters relating to the cession from France to Spain, replete with dramatic and thrilling incident! The original official correspondence contained in these volumes (now for the first time brought before the public), of the early French governors of Louisiana, discloses the germ of its precarious and languid colonial existence, and leads, at every page, to a comparison with its present vigorous and expansive development, gratifying, in all its late rapid gradations of advancement, to the feelings of the patriot and philanthropist! This development, embracing all nations in its generous efforts, is now rapidly extending its influence to frontier countries, who, by a special dispensation of Providence, appear destined to participate in the advantages of institutions ameliorating as they extend the condition of suffering humanity! With respect to this work, and the translation, which Mr. Gayarré considers "a compliment to the author peculiarly flattering and gratifying in this case, as proceeding from a lady of such distinguished literary attainments as Mrs. Stewart, and to which the public expectation has been greatly raised by the praises bestowed on it by competent judges," we are permitted, moreover, to offer an extract from a letter written by that accomplished scholar and historical antiquarian, Alfred Hennen, Esq., Counselor at Law, New Orleans. "I hope you will persevere in your translation of the History of Louisiana, by Mr. Gayarré, and favor the public, in the English language, with the important and interesting documents which have been for the first time brought to light in that work! You have done me the honor to submit a large portion of your translation to my perusal; I therefore know the labor you have bestowed on it, and the fidelity with which you have executed the difficult task which you undertook, and in which you have been so eminently successful. The admirable tact you have discovered, whilst adhering scrupulously to the sense of the text, in adapting to classical English the old French official phraseology of the colonial governors, so various in style, frequently obscure or diffuse, and replete with obsolete expressions and repetitions, impart to your translation, remarkable for its harmonious elegance and purity of language, all the vigor and freshness of an original production, entirely devoid of Gallicisms!"

7. **REPORT OF THE COMMISSIONER OF PATENTS** for 1847. Mr. Burke's second valuable contribution has just reached us. Though but meagre in proportions, in consequence of the ill-advised parsimony of the powers at Washington, it is yet a valuable document.

There were, in 1846, 1293 applications for patents; number of caveats filed, 448; patents issued, 619; patents expired, 473; income of office, \$39,000; expenses, \$33,700 41. The Patent Fund has now standing to its credit in the Treasury, \$186,565 14.

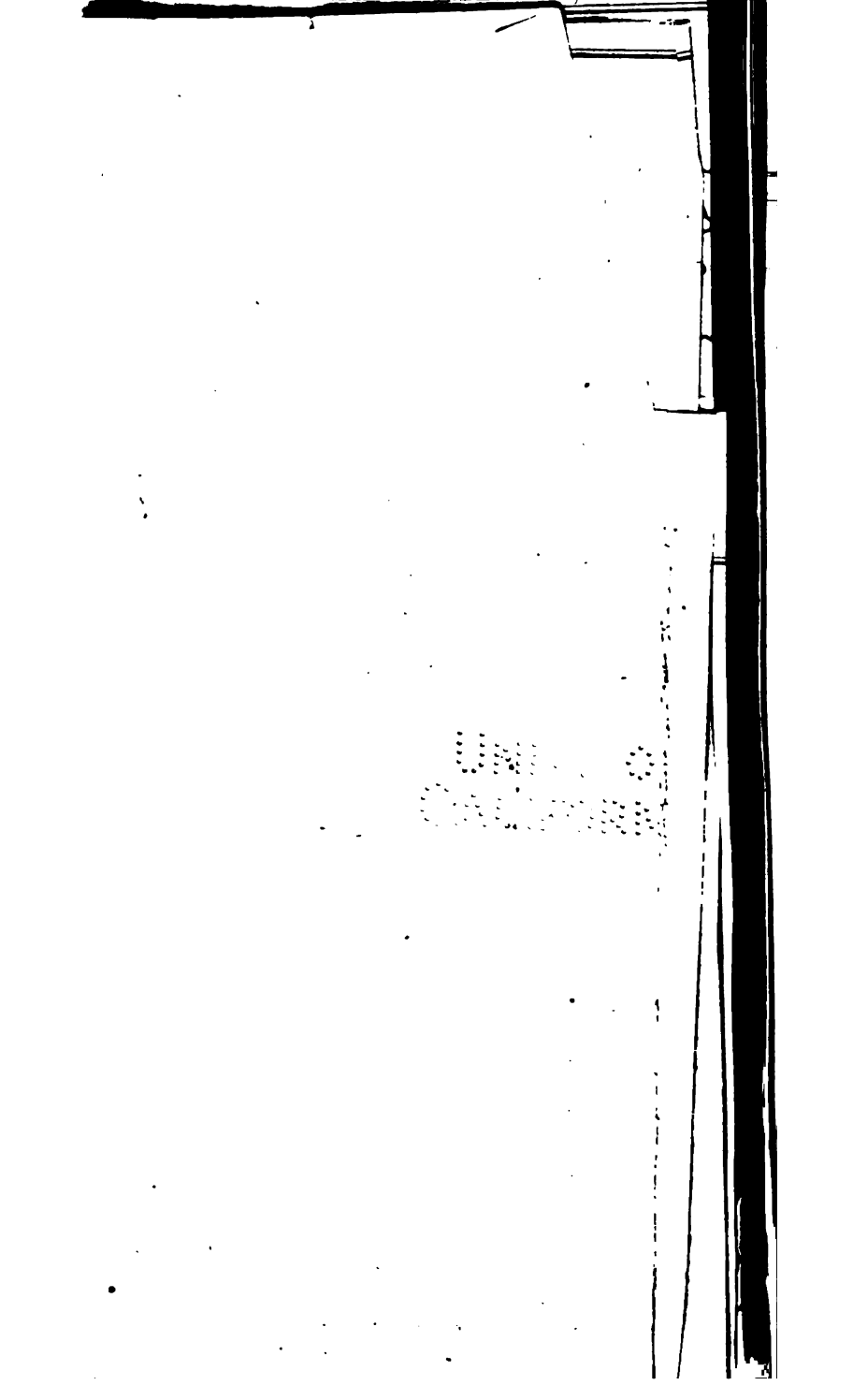
The Commissioner suggests many modifications and improvements of the system. What he states in relation to the importance of the government collecting and embracing the various statistics relating to the agriculture of this country, is worthy of his liberal mind, and we have, upon past occasions, dwelt upon it, particularly in our article in the September No. Commercial Review for 1846.

8. **PROCEEDINGS OF THE STATE AGRICULTURAL SOCIETY OF SOUTH CAROLINA**. We are indebted to A. G. Summer, Esq., the compiler, who, under the direction of the Society, and with funds appropriated by the State Legislature, has published a volume, and a supplement, of several hundred pages, for a copy.

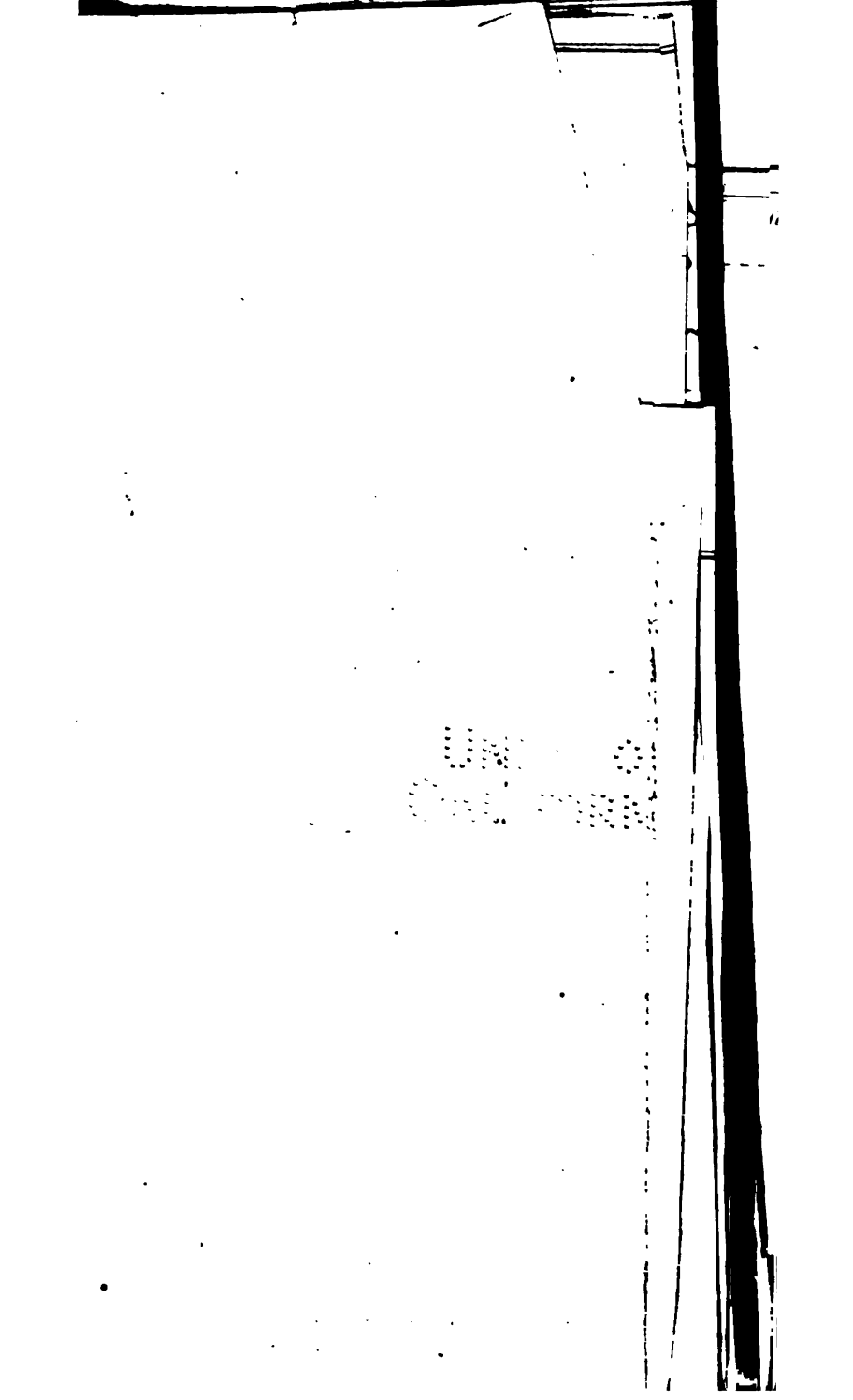
The volume contains a sketch of the history of the Society, and of kindred associations, with the various reports, speeches, addresses, &c., which have been delivered before it for a number of years past.

The supplement contains a Memoir of the Sea Island Cotton, by the Hon. Whitmarsh Seabrook; Analysis of Rice Straw, by Prof. Shepherd; and a Memoir of the Rice Plant, already published in the Review by R. F. W. Allston, Esq.

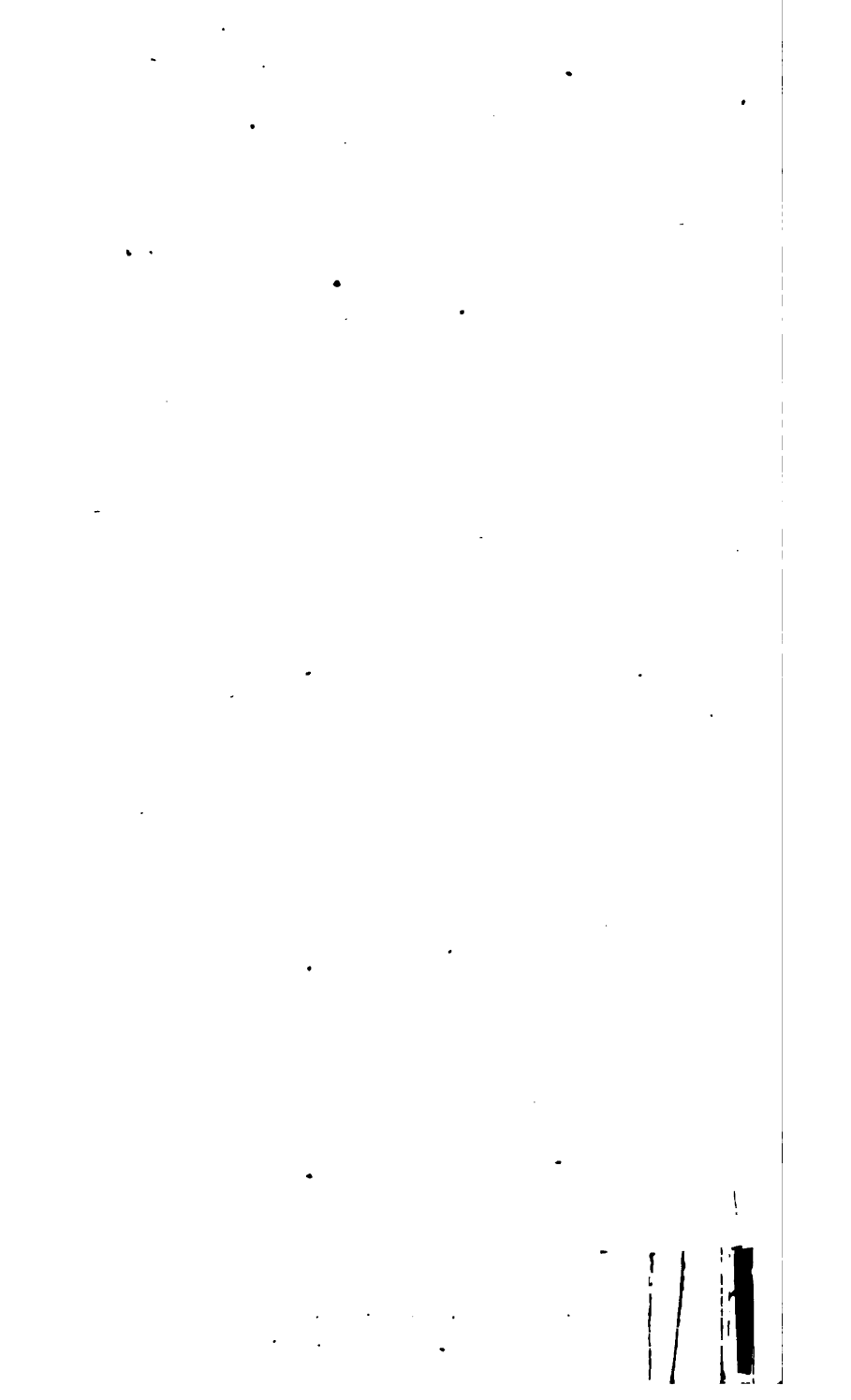




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Follow nearly the line



THE
COMMERCIAL REVIEW

OF THE
SOUTH AND WEST

ESTABLISHED JANUARY 1, 1847

J. D. B. DE BOW, EDITOR AND PUBLISHER



Volume IV.

OCTOBER, 1847.

No. 2.

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THE COMMERCIAL REVIEW.

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No. 2.

Art. I.—LIGHT-HOUSES.

' Now twilight dims the water's flow,
And from the tower the beacon's glow
Waves flickering o'er the main."

SCHILLER.

HE who has ventured out upon the deep ocean and heard the dash of its breakers, and the wild revelry of the storms, that whistle, and whirl, and rage, and roar, and pile up mountains, as it were, to the stars, only can comprehend the true poetry of the LIGHT-HOUSE. Its star on the horizon gleams o'er the water and tells a tale of home and its joys to the weather-beaten mariner. Who has ever contemplated this soft lustre at evening, or at midnight, or in early morning, without blessing its mission of charity and love ?

These beacons of the ocean are of great antiquity ; men have even imagined that the Cyclops, so famous in classic song, were none other than the keepers of light-houses, or perhaps light-houses themselves metaphorically personified. This, however, is inconsistent with the well-remembered lines of the Odyssey.

Εἰς' οὐτίς τὴν νῆσον ἰσίδρακεν ἀφθαλμοῖσι
"Ὅτι", οὐκ κρυφατὰ μακρὰ κολινοῦμένα τοῦ χερσον
Εἰσίδρακεν τρὶν νηῶν ἰσσοῖδρους ἐπιπέλασι.—IX. 146.

About the year 300 A. C., the great Colossus of Rhodes was constructed, the wonder of all antiquity ; between its ponderous legs the "tallest admiral" of the times could sail, and its great height sufficed as a beacon for distant navigation.

The Pharos of Alexandria was a tower raised to a lofty altitude, and supported ever upon its top fires sufficiently large and high to be observed forty miles across the deep. The tower of Corrunna was also a famous light-house in the earliest days of Ireland.

One of the most celebrated modern lights is the Tour du Corduan, at the mouth of the Garonne, built in 1589, 197 feet high.

The Eddystone tower is equally remarkable ; it was constructed upon the rocks near Cornwall, England, as early as 1696, but destroyed by fire in 1755, and rebuilt in 1759.

But space does not allow us to dwell much upon observations of

this kind. Our present paper will be devoted to a review of the light-houses and systems of the present day.

It will be remembered that in June 1845, the present distinguished head of the Treasury Department of the United States, in pursuance of those arduous duties and enterprises which have given character to his administration, dispatched Lieutenants Thornton A. Jenkins and Richard Bache, of the navy, to Europe, for the purpose of collecting all such information as might be had upon the systems of light-houses in use. A previous inspection of American light-houses had exhibited the most striking defects.

Messrs. Jenkins and Bache were instructed to report upon :

1. The organization of the light-house system in Europe.
2. The construction of light-houses.
3. The lighting apparatus.
4. Arrangement for securing necessary attendance upon the lights—their expenses and efficiency.
5. The classification, construction, cost, and modes of placing buoys, spindles, and other aids to navigation; manner of building, fitting up, and mooring light-boats, and their cost of maintenance; the Mitchell screw pile, &c., &c.

In June, 1846, the Report of these gentlemen, an elaborate work, accompanied with draughts, designs, &c., was presented to Congress with an able introduction by the Secretary of the Treasury.

I. The light-houses of GREAT BRITAIN are of two classes—public general, or coast lights; harbor, or local lights; or they are capable of this division: Trinity House Light Scotch Light, Irish Light, Local, or Harbor Light, Colonial Lights. The Irish and Scotch are in charge of particular boards at Edinburgh and Dublin. The local, or harbor, except those of Ireland, are individual corporations; as, the Screw Pile Light, at Fleetwood, the corporation of Liverpool, etc. The same is true of the Colonial Lights. The whole number of lights in England in 1845 was 309, 121 being public general, 29 floating, 131 local, 28 harbor, &c. Buoys, beacons, and sea marks, are in charge of the respective light-house establishments.

The great and interesting subject of notice is the extensive corporation of TRINITY HOUSE. It has in charge all the public lights and buoys on the coast of England, and also, a superintendence over all local, or harbor lights in the kingdom; no changes among which can be effected without its consent. It consists of thirty-one members, eleven being honorary and the others active, viz.: retired captains of the commercial marine, &c.; there are a number of manager brokers attached, from whom vacancies in the corporation are supplied. The acting members have several committees charged with specific duties. Agents are appointed by the board; superintendents of lights are appointed over districts, each being furnished with a vessel for visiting every point, and they report quarterly to both boards the most minute particulars. A civil engineer is employed for draughting all plans and directing the works; and a scientific man to experiment in relation to combustibles, lights and towers, oils, etc., etc. The corporation have immense store-houses for supplies, buoys, anchors, cables, chains, oil, etc.

The LIGHTS OF LIVERPOOL, as we before stated, is a corporation, and has seven houses under its control—sixty buoys, ten land beacons, one floating bell, etc., etc. Of the houses, Rock, and Point

Lignas are noticed particularly. In order to afford the speediest relief to distressed vessels, Liverpool Bay is divided into squares and numbered; a vessel needing assistance is immediately telegraphed by the number of the square she is in. "The surveyor glancing his eye upon the chart, sees at once the position of the vessel in distress, judges what her probable wants are, from his knowledge of the dangers near her, and dispatches the steamer directly for the position indicated, &c." There are also a number of light-boats.

The SCOTTISH COASTS come within the jurisdiction of the commissioners of northern lights. They are twenty-five in number, and taken from civil life without compensation. Fifty-one local lights are under the control and management of trustees, and supported by a tax upon shipping. There is an engineer charged with the superintendence of the general lights.

The LIGHT-HOUSES OF IRELAND are under charge of the Ballast Board of Dublin, composed of twenty-two members. The consent of the Lord-Lieutenant is necessary to the construction of new light-houses, and the approval of the London Trinity Board.

The light-house department of FRANCE is attached to the duties of the Secretary of State for the Interior, and under the control of the Minister of Public Works. A central board of eleven distinguished scientific and professional men have the management of all light-houses, &c. There is a central workshop and depot in Paris, for all mechanical fixtures, etc. The whole expense of the system is defrayed from national funds, and not charged upon shipping.

The light-house establishment of HOLLAND is under the control and management of the department of marine. Its general superintendence is in the inspector-general of pilotage. It is supported by duties upon commerce.

There is but one light-house belonging to the government of BELGIUM, viz.: at Ostend. There are also three tide and two harbor lights.

The general board of customs and commerce, at Copenhagen, have control of the DENMARK lights. The establishment is supported by light or sound dues, which are levied upon vessels of all nations passing the sound and belts.

The PRUSSIAN lights are under the control of the minister of finance, and belong to the division of commerce. That department of the government decides upon the erection of all new establishments, etc., etc.

The lights of SWEDEN AND NORWAY are supported by duties upon commerce; while those of Russia, like those of the United States, are maintained by the national treasury.

II. We come now to the construction of light-houses. Those of England are most perfect and solid—the old being of cut-stone, the new of hard brick. Economy is not considered, but durability and beauty. The Maplin Sands light is constructed upon Mitchell's screw-pile, "by means of which, and by those means alone, foundations have been laid in sand-banks covered at all times by the sea, and on which light-houses have been erected which have now endured, uninjured, the storms and casualties of many winters. The foundation of the Maplin light-house was laid seven years since,

namely, in the summer of 1838; and the Fleetwood light-house, which was commenced in the summer of 1839, was lighted on the 6th June, 1840, upward of five years since; since which time, with the exception of a little paint, we understand that neither house has required the smallest repair."

Cast-iron towers are being gradually introduced, and have been built at Jamaica, Bermuda and Ceylon. "The chief alleged advantages of the cast-iron over the stone and brick towers are these: cheapness, facility of erection in any place, greater strength against vibrations in hurricanes, freedom from injury by lightning in tropical climates, and against the chances of earthquakes or fire."

"The light-house towers of France are constructed in the most substantial and perfect manner possible, without there being any appearance of unnecessary or wasteful expenditure. Great care is taken in the interior arrangements of the buildings, so that they may best answer the requirements of the service. Many of the towers are constructed of a soft stone of a rather peculiar kind, which hardens by exposure to the action of the atmosphere; those constructed of that material are lined inside with brick, leaving a sufficient space between the interior of the outer wall and the brick to allow a free circulation of air, thereby securing the building from dampness. Hard burnt bricks are preferred for light-house towers, when circumstances will admit of their being employed, particularly in fitting up the oil apartments, which are placed below the surface of the earth, to insure as equable a temperature during the whole year as may be possible to attain. The keepers' apartments are finished and fitted up in a plain, substantial, and economical manner, combining all the necessary accommodation and comfort. There is a room fitted up, and properly furnished, for the accommodation of the engineer, inspector, or other person authorized to make official visits at each light station. Especial care is taken to secure proper ventilation to the towers and lanterns—all the necessary fixtures about the light-rooms, lanterns, apparatus, &c.—the most minute, and apparently unimportant details in the exterior and interior arrangements; in short, nothing could combine greater perfection in stability, in usefulness, and a proper economy, than is perceptible in everything connected with the lighthouses visited by us on the coasts of France."

In Prussia the buildings are chiefly of stone. In 1843 a small iron one was erected at Dantzic for a harbor light.

III. *The lighting Apparatus.*—The lights of Trinity Corporation are fixed, revolving, flashing, colored, double, &c., &c. The number of burners varies from 1 to 30. The reflectors are generally 21-inch parabolas.

"The lanterns and lighting apparatus are constructed with the same regard to stability and durability as in the construction and fitments of the buildings; the frames for the lamps and reflectors are of iron, very solidly fitted together, and the lamps and reflectors so securely placed that it would be almost impossible to get them out of their proper positions; the light-rooms are large, and of good height; the glazing is ordinarily of thick plate-glass, of 30 inches broad to 24 inches high, set into composition metal frames, and the roof of the lanterns of copper. The light-rooms and domes of the lanterns are

painted white, and they retain their cleanly appearance, by care and an occasional application of soap and water, for a considerable length of time; the lanterns are free from smoke, notwithstanding the different methods that are employed to produce a proper ventilation."

"The material for burning in the English lighthouses is *pure "winter bagged sperm oil."* The results of the experiments to test the value of different gases for light-house purposes, have not been satisfactory to the Trinity board, or sufficiently so to warrant their introduction into any of the lighthouses under its control. They regard the sperm oil, or refined rape seed (colza) oil, as preferable materials; the latter is the cheaper in England; it has not, however, been generally introduced. In fact, the determination to use it at all is of very recent date."

Gas is used in local lights with great success. The same is true of Scotland.

Mr. Allan Stevenson, in his report to the House of Commons, says: "No success has attended any attempt to render the Drummond light, which was at that time a subject of so many experiments, at all applicable to light-house purposes; nor am I aware that any one has ever indicated the direction in which inquiry might, with the greatest chance of success, be employed. All the changes that have been proposed have consisted in burning various gases under certain modifying circumstances; but I see no reason for believing that an increase of intensity sufficient to warrant the introduction of gas into light-houses has been obtained. Its use is unquestionably attended with risk of irregular exhibition in situations so remote as most light-houses are; and in some situations it is wholly inapplicable (as in the Bell Rock and Skerryvore), and also in all revolving lights on the reflecting principle. In ordinary weather the present lights are seen as far as the curvature of the earth allows; and unless a light powerful enough for the penetration of a fog can be found, I see no inducement to run any risk as to the due and regular exhibition of the light, for the sake of any small increase of its intensity."

"The lights of Ireland, with one exception, are fitted with parabolic reflectors, made of copper, and silver plated, generally of 21 inches diameter, although some are larger. The burners used are Argand, about seven-eighths of an inch in diameter, constructed on the last and most approved plan. The number of reflectors for each light-house varies from 1 to 27. The lamps and reflectors are made at the Soho works, Birmingham, as a general rule.

"At present there is but one dioptric light in Ireland (at St. John's Point). It was constructed at Newcastle-upon-Tyne, by Cookson. There are three others proposed; one to be placed in a new tower, and the other two in old towers. The dioptric system is advocated by the engineer upon the score of economy, as well as superiority of light produced.

"The French mechanical lamp is employed successfully in the St. John's light-house, and the same kind of lamp will be used in the three proposed lights when ready for lighting. Mr. Halpin, the assistant inspector (engineer), does not approve of Mr. Wilkin's catoptric lamp for reflectors. The Argand is preferred by him.

The lanterns are of iron, with strong, though not thick sashes:

with glass three-eighths of an inch thick, and ordinarily 40 by 24 inches. The best plate-glass is used *only*; and the frames of the lanterns constructed with particular reference to their not obstructing unnecessarily the light by being too heavy. The domes are of copper; no lightning rods, that we saw. Particular care is bestowed upon the ventilation of the towers and lanterns; although, as yet, Dr. Faraday's tubes have not been introduced.

There are only five modes of distinction employed in Ireland, viz.: fixed white, fixed red, revolving white, revolving red and white, and intermitting lights.

"All the lights, buoys, beacons, &c., of Ireland, are supported by light dues, as in England and Scotland. The duties are one-quarter of a penny per ton for each light passed. No dues are levied for buoys and beacons. Harbor lights, being under the management of the ballast board, are placed upon the same footing as the public general or sea-coast lights. All supplies, as a general rule, are furnished by contract. The contracts are entered into upon sealed tenders, notice having been given for a sufficient length of time in the newspapers, of the articles required. The contracts are entered into annually for all articles for the ensuing year. Provisions, supplied under contract, are furnished to the men on board of the light-vessels in addition to their wages."

(To be continued.)

ART. II.—SUGAR—ITS CULTIVATION, MANUFACTURE, AND COMMERCE.

No. I.*

VEGETABLE PRINCIPLES—PROPERTIES OF CANE SUGAR—RE-AGENTS—MOLASSES, TREACLE—CANE JUICE—SACCHARINE MATTER—ANALYSIS OF SUGAR CANE, VARIETIES OF SUGAR MILLS—MOTIVE POWERS, ETC.

THE extraction of sugar from its juices is said to be a purely chemical process, and of consequence most perfectly conducted wherever science prevails the most. In the manufactories of the metropolis it will be found in a much higher state of advance than in colonial work-houses and estates, however extensive.

In the United States we have been latterly convinced of this, and are taking those steps which are suggested. The extraordinary advance which Louisiana evinces, speaks volumes for this better spirit.

* We have been for some time collecting everything that could be had upon sugar as cultivated and manufactured at home and abroad, and have published many able articles from different sources of highest character. In this search we spare no pains, intending to prosecute it to the utmost extent. We have sent to Europe for material, and already been furnished with much that is valuable by an intelligent correspondent at London. The results in our own country are continually forwarded us. Our present article is the first of a series which shall embrace everything. We believe that the sugar planters and manufacturers of our country will sustain this enterprise and labor, which is likely to prove so valuable to them. We beg their co-operation and correspondence upon this subject. As we progress, plans of machinery in every mode of preparation and improvement will be published without regard to expense. Our present number is based upon the valuable work of Dr. Evans, about to be published in England, a copy of which has been sent us in advance, by a friend in that country. For other valuable information upon sugar, the reader will refer to our Review, Vol. I., 53, 54, 380; II., 322, 212, 214, 267, 422; III., 118, 231, 233, 245, 580, 248, 269, 294, 299, 301, 341, 376-395, 442; IV., 41, 128-136.

Her liberal planters pause at no pains or expense ; many of them are ever engaged in prosecuting their experimental researches ; the progress is continual, and the effort unremitting. Were it not invidious, we could call by name many of these planters ; some of them have sent agents to Europe to examine machinery and movements. The expense of improvement and apparatus is the last consideration ; the great point is *perfection*.

Oxygen, hydrogen, nitrogen and carbon are the chemical constituents of all substances produced by the vital action of plants. Thus the water taken up by the roots and carried into the leaves, as sap, to be exhaled, to liberate oxygen, etc., thus changing its character, to return fit for the nutrition of the plant, contains two of these elements. "All the proximate principles which enter into the structure of a plant, are formed by a blending together of their elementary bodies in various proportions."

If any of these compounds nitrogen be present, it is said to be *azo-tized*, if otherwise, *non-azotized*. Thus dextrine, starch cellulose, lignin, or woody fibre, gums, mucilage, and *sugar*, are of the latter class.

But sugar is also a product of the animal kingdom ; thus, the sugar of milk, of diseased urine, etc. Vegetable sugar is that of the cane of fruits, of manna, etc. The *glucose*, or fruit sugar, is uncrystalizable, undergoes rapid vinous fermentation, and has a peculiar combination of elements. *Mannite*, the ingredient of manna, is contained in the juice of plants in New South Wales, and certain sea-weeds—does not ferment. The *cane-sugar* consists of carbon, 12 atoms ; hydrogen, 10 atoms ; oxygen, 10 atoms ; and 1 atom water. Sugar-cane absorbs readily the chloride of sodium and potassium, and probably the sulphates. Where these salts abound in soils the sugar will possess purgative qualities. The sodium, or common salt, forms a deliquescent compound, and thus the difficulty of crystalizing sugar made from saline soils.

Cane sugar may also be obtained from many grasses, maize, guinea corn, roots of the carrot, beet, &c. ; from pumpkins and melons, from the sap of the palm, &c. When pure, it is solid, transparent, and colorless ; crystals, rhomboidal prisms ; but subject to modification ; soluble in half its weight of water at 60°, and $\frac{1}{2}$ at boiling point, sparingly in cold alcohol ; specific gravity, 1600, water being 1000 ; at 300° it melts, and forms an uncrystalized mass, which, on a much greater application of heat, becomes uncrystalizable ; at 500° the black substance *caramel* is formed.

The sugar cane is cultivated chiefly in the West Indies, Brazil, Louisiana, and the Mauritius, and is of the following chief varieties :

1. Common or Creole cane, so called from being introduced from the new world.
2. Yellow Bourbon.
3. Yellow Otaheite.
4. Otaheite, with purple bands.
5. Purple Otaheite.
6. Ribbon cane.

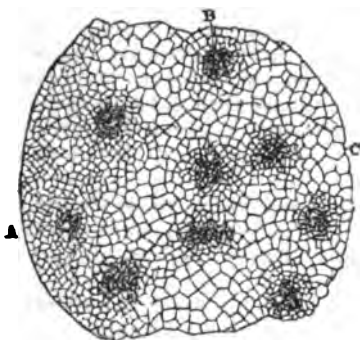
The *Muscovado sugar* is all such as contains any foreign matters, as silica, phosphate of lime, carbonate of lime, organic matter, potash ; being the state of all colonial and plantation sugars.

Molasses is the mother liquor after the crystalization of cane su-

gar. It contains pure sugar and impurities. Twenty pounds Louisiana molasses gave 15 lbs. of the former, and 5 of the latter, including water.

Treacle is a late product of the refinery; it does not crystallize; is of a dark brown color; specific gravity, 1380–1400.

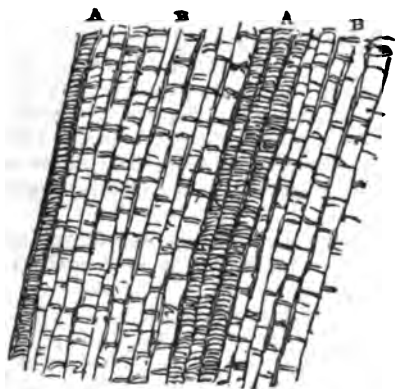
Fig. 1.



The plant is perennial. The stem, cut horizontally, is shown in figure 1, and when examined by a microscope, shows a series of hexagonal cells, formed of delicate tissue and closed laterally above and below, each being entirely independent. A series of vessels inclosed in woody sheaths is also found, and best shown by a vertical section.

Thus, A A, fig. 2, are the vessels; B B, the cells; the former being formed of rings, and running from one extremity to the other of the joint, forming a lacework. Here are situated the knots. The eyes, or germinal spots of the plant are found here. The vessels contain a crude sap or fluid; the cells a solution of pure sugar and water. Between these there would appear to be a continual communication. The sugar cells supply nourishment to the rapidly vegetating cane, but this supply is discontinued on maturity.

Fig. 2.



Cane-juice is the expressed product of crushed cane, and of consequence, consists of other substances besides sugar and water.

It is first opaque, frothy, and of a yellowish green or greyish; sweet taste; acid reaction on test-paper, and separable by filtration into a transparent yellow fluid, and a dark green fecula. This fecula or scum, when separated by heat and lime, consists of wax 7.5, green matter 1.3, albumen and wood 3.4, bi-phosphate of lime 0.5, silica 2.1, and water. The transparent liquid consists of water, sugar, saline matters, coloring principles, etc.

The experiments of Peligot and Evans on filtered cane-juice prove—

1. That cane-juice, without the addition of any foreign matter, when its water is evaporated at the ordinary temperature of the atmosphere, does not produce crystals of sugar.

2. That when it is exposed to a temperature a little below that of

boiling water for the purpose of concentration, crystallization of a part, but not of the whole, of its sugar takes place.

3. That on the addition of alcohol to the concentrated syrup, nearly the whole of it is converted into a solid crystalline mass on farther evaporation.

Filtered cane-juice at rest loses its transparency, becomes viscid, and ferments. Boiled cane-juice changes with great rapidity its chemical character. The casein which it contains is insoluble in pure water; acidulated, or rendered alkaline, by vegetable acids or potash, soda, or lime, not in excess, the casein may be separated. Without this separation crystallization is imperfect, and fermentation ensues. Sulphurous acid, on a base of zinc or lime, will prevent the latter action, but ought never to be required. The saline matter of cane-juice is 2 to 4 parts in 1000.

Dr. Evans, writing of the West Indies, says: "There are lands on which the canes do not seem to ripen, owing to the saline soil stimulating too large a growth, and preventing a deposit of sugar in the cells. Drainage is a chief remedy here. A luxuriant vegetation followed by continued drought, checks the growth, and the plant shows a disposition, as it is called, to arrow. This drought occurring when the canes have attained ordinary growth, is beneficial.

The evil effects of *drought* are thus explained:

In consequence of injury that the structure of the stem has suffered, the liquid contents of the different organs have been mingled, the azotized matters have acted as fermentative agents, and the sugar, in whole or in part, has been converted into gum, glucose, and lactic acid, the one or the other of them predominating in different cases."

That of early frost. The frost causes an expansion of the fluids, and a rupture of the organs which contain them. An intermixture of the saccharine and nitrogenized principles consequently ensues. Should the frost continue, no evil results are observed; for at such a temperature catalysis is prevented; but should a thaw succeed, the cane-juice becomes viscid and mucilaginous, the syrups resulting from it will not crystallize, and the only use to which they can be applied is that of distillation.

Table representing the Specific Gravity of Solutions of Sugar of various strengths.

Specific gravity.	Sugar in 100 parts.	Specific gravity.	Sugar in 100 parts.	Specific gravity.	Sugar in 100 parts.	Specific gravity.	Sugar in 100 parts.	Specific gravity.	Sugar in 100 parts.
1000	.00	1057	.14	1118	.28	1187	.42	1263	.56
1004	.01	1062	.15	1123	.29	1193	.43	1268	.57
1008	.02	1066	.16	1128	.30	1199	.44	1273	.58
1012	.03	1069	.17	1133	.31	1204	.45	1279	.59
1016	.04	1073	.18	1137	.32	1209	.46	1284	.60
1020	.05	1077	.19	1142	.33	1215	.47	1289	.61
1024	.06	1081	.20	1147	.34	1220	.48	1295	.62
1028	.07	1085	.21	1152	.35	1225	.49	1301	.63
1032	.08	1090	.22	1157	.36	1230	.50	1307	.64
1036	.09	1095	.23	1162	.37	1235	.51	1312	.65
1040	.10	1100	.24	1167	.38	1241	.52	1317	.66
1045	.11	1104	.25	1172	.39	1246	.53	1321	.666
1049	.12	1109	.26	1177	.40	1252	.54	....	..
1053	.13	1113	.27	1182	.41	1257	.55	....	..

Table of the Density of Solutions of Sugar, according to the Scale of Beaumé.

Degrees of density.	Sugar in 100 parts.	Degrees of density.	Sugar in 100 parts.	Degrees of density.	Sugar in 100 parts.	Degrees of density.	Sugar in 100 parts.	Degrees of density.	Sugar in 100 parts.
1	.018	8	.144	15	.276	22	.406	29	.541
2	.035	9	.163	16	.294	23	.424	30	.560
3	.052	10	.182	17	.315	24	.443	31	.580
4	.070	11	.200	18	.334	25	.462	32	.601
5	.087	12	.218	19	.352	26	.481	33	.622
6	.104	13	.237	20	.370	27	.500	34	.644
7	.124	14	.256	21	.388	28	.521	35	.666

The method usually resorted to by chemists for ascertaining the amount of sugar contained in a given solution, is either the following or one closely resembling it. Presuming that cane-juice is the saccharine fluid to be examined, a weighed quantity of it is filtered, and a portion of very strong alcohol, equal to half its bulk, is added to it; a flocculent precipitate immediately takes place, which is removed by a renewed filtration. The liquid is then placed under the receiver of an air-pump, into which is, at the same time, introduced a vessel containing a quantity of perfectly caustic lime. On the air being exhausted, the water, in consequence of the affinity which its vapor and the lime have for each other, is evaporated, while the alcohol remains. In the course of ten days or a fortnight, the alcohol becomes too strong to retain the sugar in solution, and this substance is, consequently, precipitated. The precipitate is then to be washed in strong alcohol, and, having been carefully dried, it may be weighed and its amount ascertained.

ANALYSIS OF THE ASHES OF THE SUGAR-CANE.

	1	2	3	4	5	6	7	8	9	10	11	12
Silica	45.97	42.90	46.46	41.37	46.48	50.00	45.13	17.64	38.39	52.30	48.79	54.59
Phosphoric acid	3.76	7.99	8.33	4.59	8.16	6.58	4.88	7.37	6.90	13.04	2.90	8.01
Sulphuric acid	6.66	10.94	4.65	10.93	7.52	6.40	7.74	7.97	5.06	3.31	5.35	1.83
Lime	8.16	13.30	8.91	8.11	5.78	5.09	4.48	2.34	5.87	10.64	11.62	14.36
Magnesia	3.66	9.58	4.50	6.92	15.61	13.01	11.90	3.93	5.4	5.63	5.61	3.30
Potassa	25.50	12.01	10.63	15.99	11.93	13.69	16.97	32.03	34.21	10.09	7.45	11.11
Soda .....	..	1.39	..	..	0.57	1.38	1.64	..	..	0.80	..	..
Chloride potassium	3.27	..	7.41	8.96	..	..	..	10.70	11.14	..	16.00	8.84
Chloride sodium	2.02	1.69	9.21	2.13	3.95	3.92	7.35	17.12	7.64	4.25	2.27	2.83

The above results were condensed by Prof. Shepard of South Carolina from the results of Mr. Stenhouse. Prof. S. remarks:

Nos. 1, 2, 3, and 4 were very fine full-grown canes from Trinidad, consisting of stalks and leaves, but without the roots. Nos. 5, 6, and 7 were similar canes from Berbice; No. 8 from Demarara; No. 9, of full-grown canes, but with few leaves, from the island of Grenada; No. 10 from Trelawny, Jamaica, consisting of transparent canes in full blossom, grown about six miles from the sea, and manured with cattle dung; No. 11, of transparent canes, from St. James', Jamaica, growing about two hundred yards from the sea, being old ratoons, and also manured with cattle dung; No. 12, young, transparent canes three and a half miles from the sea, and manured with cattle dung, guano, and marl.

From these analyses, it appears that the cane for successful cultivation requires a very large quantity of silicate of potassa, and also a considerable amount of the phosphates. Few cultivated plants, except the cerealia, require so much. Wheat, or any of the cereals,

necessarily causes the removal of a portion of the valuable inorganic constituents of the soil, such as the alkalies, phosphates, &c., which can only be returned to it indirectly; but with sugar the case is quite otherwise. Sugar is a purely organic substance, consisting of carbon and the elements of water, all of which can be derived from the atmosphere, and contains neither alkalies nor phosphates; so that if the ashes of the canes were carefully collected and returned to the soil in an available state, there is no reason why cane might not be grown upon the same lands almost indefinitely.

In the West Indies, where wood is scarce, the crushed canes are employed as fuel, under the coppers of the boiling-house, to concentrate the syrup, and as the heat required is great, a large amount of the silica and the alkalies present is converted into a hard, insoluble glass, which, in this form being useless, is thrown away. We can, therefore, readily understand the reason of the rapid exhaustion of their sugar-lands, and the comparatively slow wearing out of those in Louisiana, where, from the abundance of wood, the cane-trash is never thus employed, and where, in addition to the inorganic ingredients of the cane, the soil receives (at least where the plantership is what it ought to be) the almost equally valuable mineral constituents of the wood itself.

Having examined the physiology and structure, varieties and chemical ingredients of cane, the next step will be to determine the mechanical means used for the extraction of its juices.

The fluid contents of a cane, according to Evans, contain *ninety per cent.* of the entire structure of the stem.

The Sugar Mill.—The mode of expression is by rollers. M. Duprez, an agent of the French government, having experimented on the canes in Guadaloupe, found the quantity of juice in every 100lbs. crushed

1. By mills having horizontal rollers; the motive power not stated.....	61.2 lbs.
2. By mills; motive power, steam.....	60.9 "
3. By mills; motive powers, wind and steam.....	59.3 "
4. By mills having vertical rollers.....	59.2 "
5. By mills; motive power, cattle.....	58.5 "
6. By mills; motive power, wind.....	56.4 "

The average of all these experiments being 56 per cent. only. The result of M. Avequin on Louisiana cane, was 50 per cent. Mr. Thompson of Jamaica states 50 per cent. as the average throughout the island of Martinique. Dr. Evans ventures 47 per cent. as the lowest, 61 as the highest, in the West Indies. A mill in Madeira gave 47.5 and 70.2 of juice.

The mill was a small one, made at Aberdeen about two years previously, on the ordinary principle, with horizontal rollers, and the motive power was cattle. During the experiment which furnished the last and largest result, the rollers were braced more than usually tight, and the number of canes introduced at a time were five or six, being the utmost that the strength of the cattle would admit of. The canes were squeezed once only; indeed, the megass was too much lacerated to admit of its being passed between the rollers a second time with advantage.

These low results, Dr. Evans supposes, would compare favorably

with those taken carefully throughout all the British colonies for the following seasons :

1. Because we can scarcely expect to find superiority, or even equality, where no attempts have been made to obtain it.

2. That when we are ignorant that a deficiency exists, little pains will be bestowed to correct it.

3. When, from the force of circumstances, more attention is paid to the obtaining of an abundant supply of megass, to serve as fuel for the concentration of the cane-juice of the following year, than I, at least, have ever seen evinced for obtaining a full and adequate supply of juice for the present.*

The Hydraulic Press.—This has been proposed to substitute the mill, and introduced into Jamaica and St. Vincent, but the results are not yet given. It was even suggested that the canes, cut into thin slices and dried, be forwarded to Europe for more perfect manufacture. The trial from Guadaloupe failed; the canes undergoing in the passage decomposition.

A new patent for extracting juice was lately taken out by M. Michiel. It consists in cutting the canes into thin slices and submitting them to the action of lime and water, to coagulate and render insoluble their nitrogenized constituents. This, it is thought, will extract the whole of the saccharine matter. Doubts are expressed as to its practicability, economy, and dispatch for large estates.

To give the greatest efficiency to the sugar-mill, Dr. Evans suggests the following rules, by means of which he thinks 20 per cent. more of juice may be obtained than is usually, without additional cost.

1. The rollers should be made to approximate as closely as the work which they have to perform will admit of. In mills, in which the rollers observe a vertical direction, the space between the first and second should scarcely, if at all, exceed 1-4 of an inch, while a distance of 1-6 of an inch is the most that should be allowed between the second and third. When they are placed horizontally, the upper one ought to observe a space of 1-5 to 1-4 of an inch from the two lower. These distances can never, perhaps, be accurately given in every case, but the requisite degree of bracing should always be strictly attended to.

2. The velocity of the rollers should be rendered as uniform as possible, not by diminishing the amount of the motive power but by a carefully regulated supply of canes.

3. The canes when thrown upon the feeding board should be upon the same plane, and never suffered to cross each other, otherwise the motion of the rollers will be checked, and the canes will be submitted to unequal pressure.

4. The megass should invariably be repressed between the rollers, so as to extract, as much as possible, the juice which still remains in it.

When the canes are rich, and their juice of considerable density, the megass should be sprinkled with a little water, or, where it is practicable, exposed to the action of steam before it is submitted to the pressure; but when the canes are large, green, and watery, this may be dispensed with.†

The *three-roller mill* has the disadvantage of re-absorbing a part of the cane-juice in the spongy megass and a loss of power. Those with *five rollers* have been used in Cuba, Bourbon, and the Mauritius, which gave 70 per cent., a great increase of motive power being, however, necessary. *Four-roller mills*, two below and two above, requiring little more motive power than the three-roller, have given 70 to 75 per cent. of juice.

The motive power applied to mills is animal, wind, water, and steam. In many of the English colonies *mules* are used, but are considered bad economy. *Wind* is chiefly applied in Barbadoes, with its usual advantages and disadvantages. *Water* has been little

* Evans on Sugar, p. 77.

† Ibid., p. 81, 82.

used. *Steam*, at the present day, may be considered the great agent of all economical mechanical motion.

Having obtained the juice in the desired quantities, the process to which it is submitted in course of manufacture, will be seen in other numbers of our series.

Art. III.—THE GRAIN AND FLOUR TRADE.

THE close of the commercial year, commencing on the 1st September, 1846, and ending on the 31st August, 1847, with the ascertained prospects of the crops of grain for the present year, renders this a favorable time to review the results of the grain and flour trade of the United States for the past year, and enables us to form some opinion of the prospects of the same for the year on which we have entered. Our object will be principally to notice the great staple grains of wheat and Indian corn, and their products of flour and meal, the quantity of other breadstuffs exported from this country being comparatively inconsiderable.

The accounts of exports of produce from the different ports of the United States to foreign countries, are not yet made up in full to the 1st of September, 1847, but the following table is so nearly complete, embracing, within a few days, the exports from the principal ports for the past year, that we adopt it.*

Exports of Flour, Indian Meal, Wheat, and Indian Corn from the principal ports of the United States to foreign countries, from September 1, 1846, to the latest dates received at New York, up to September 1, 1847.

Ports.	Bbls. Flour.	Bbls. In. Meal.	Bushels Wheat.	Bu. In. Corn.
New York, to August 30	2,113,166 .....	.....	2,929,878	6,832,164
“ to August 10 .....	.....	377,177 .....	.....	.....
New Orleans, July 31	1,051,474	62,404	1,022,674	5,070,790
Philadelphia, August 13	500,944	313,560	663,062	1,409,790
Baltimore, August 7	652,576	97,148	183,090	1,715,640
Boston, August 10	145,626	30,869	15,173	563,697
Norfolk	39,014	9,018 .....	.....	1,296,063
Richmond and Petersburg,	49,100	4,105 .....	.....	27,164
Alexandria	18,245	1,244	23,542	97,544
Wilmington, Del.	490	47,217 .....	.....	8,400
Newark, N. J.	91	2,043 .....	.....	912
Charleston, S. C.	747 .....	.....	6,233	71,643
Savannah	1,607	254 .....	.....	70,070
Mobile	1,571 .....	.....	.....	44,214
Apalachicola .....	.....	.....	.....	40,000
Gardiner, Me.	500 .....	.....	.....	.....
Chicago, Ill. ....	.....	.....	18,000 .....	.....
Cleveland, Ohio	24,449 .....	.....	202,962	3,090
Total	4,599,729	945,039	5,065,234	17,972,815

By changing the flour and meal into bushels, allowing 5 bushels of wheat to a barrel of flour, and 4 bushels of Indian corn to a barrel of meal, and adding the same to the wheat and corn, we have the following results:

Exports of wheat	28,063,879 bushels.
Exports of Indian corn	21,052,971 “

* To Sept. 1, the exports from Charleston were 151,704 bush. corn, 2,287 bush. wheat, 3,000 bbls. flour, 46 bbls. meal; from New Orleans, to Aug. 27 flour, 1,083,538 bbls.; wheat, 622,599 sacks; corn, 2,222,639 sacks.

The estimated value of the above exports is as follows :

Flour	4,599,729 barrels	@ \$6 00	\$27,598,374
Indian meal	945,039 barrels	@ 3 25	3,071,376
Wheat	5,065,234 bush.	@ 1 25	6,331,572
Indian corn	17,272,815 bush.	@ 80	13,818,252
Total			\$50,819,574

The following comparative table of exports from the United States to foreign countries, of the same articles of breadstuffs for the previous ten years, divided into two periods of five years each, shows the great increase in the trade for the last year :

Year ending	Bbls. Flour.	Bbls. In. Meal.	Bushels Wheat.	Bu. In. Corn.
September 30, 1837.....	318,719	159,435	17,303	151,276
" 1838.....	448,161	171,843	6,291	172,321
" 1839.....	923,151	165,672	96,325	162,306
" 1840.....	1,897,501	206,063	1,720,860	574,279
" 1841.....	1,515,817	232,284	868,585	535,727
Total, first period	5,103,349	935,297	2,709,364	1,595,909
September 30, 1842.....	1,283,602	209,199	817,958	600,306
June 30, 1843 (9 months)....	841,474	174,354	311,685	281,749
" 1844.....	1,438,574	247,882	558,917	825,282
" 1845.....	1,195,230	269,030	369,716	840,184
" 1846.....	2,289,476	298,790	1,613,795	1,826,068
Total, second period	7,048,356	1,199,255	3,692,071	4,373,591

TOTAL VALUE OF THE ABOVE EXPORTS.

	First Period.	Second Period.	Total—9 yrs. 9 mos.
Flour.....	\$31,418,999	\$34,965,179	\$66,384,178
Wheat	2,637,886	3,699,879	6,337,765
Indian corn and meal....	4,614,468	5,928,956	10,543,424
Total	\$38,671,353	\$44,594,014	\$83,065,367

It will be observed that the total value of the exports of the above staples for the last year, exceeds the total value of the same for either of the above periods of about 5 years each ; and the value of the Indian corn and meal exported the past year, exceeds the total value of the same exported for ten years previous, by about eight millions of dollars.

If we take the annual average of exports of the same staples from September 30, 1837, to June 30, 1846, calling the same a period of ten years (which is near enough for our purpose), and compare these averages with the exports for the year ending in September, 1847, we have the following result :

	Exports—1847.	An. av. fr 10 yrs. prev.	Increase.
Flour, barrels.....	4,599,729	1,315,170	3,284,559
Wheat, bushels	5,065,234	640,143	4,425,091
Indian corn, bushels	17,272,815	596,950	16,675,865
Indian Meal	945,039	213,455	731,584.
Value of Flour	\$27,598,374	\$6,638,417	\$20,959,957
" Wheat	6,331,572	633,776	5,697,796
" Indian corn and meal,	16,889,628	1,054,342	15,835,286
Total	\$50,819,574	\$8,326,535	\$42,493,039

The foregoing statements show that the exports of flour, wheat,

Indian corn and meal, for the commercial year just closed, exceed in value the annual average exports of the same for a period of ten years previous, by about *forty-two millions* of dollars. It will be noticed that the exports from New Orleans for the month of August, and from various other ports for a part of the same month, or for a longer period, are to be added to the statement for the last year, which will swell the increase beyond the annual average to a larger amount than we have assumed. It is probable also that a considerable amount will be added to the exports of last year, for shipments of flour and grain sent to Europe via the St. Lawrence, from Detroit and other ports on the lakes.

The destination of wheat, flour, Indian corn and meal, for the two last years, it is well known, has been principally to Great Britain and Ireland. It may be interesting to know where have been our principal foreign markets for flour from 1800 to 1840.

The following statement shows the destination of wheat flour exported from the United States for two periods, namely, from 1800 to 1814 inclusive, and from 1815 to 1840, viz:

	For 15 years (1800-14).	For 26 years (1815-40).
British North America	352,517 barrels.	2,873,348 barrels.
West Indies	5,977,716 "	10,016,563 "
South America .....	.....	5,307,607 "
Great Britain and Ireland...1,881,296	"	4,103,205 "
France	36,713 "	347,296 "
Spain and Portugal	4,154,131 "	567,421 "
Other ports of Europe	147,508 "	642,028 "
Asia .....	.....	167,431 "
Africa .....	.....	82,087 "
Uncertain	1,094,957 "	206,350 "

The large exports to Spain and Portugal during the first period, were principally owing to the wars in the Peninsula. The supply of the allied British and Spanish armies created a great demand for American flour, which caused shipments to be made from the United States from 1810 to 1813, and sustained high prices in this country.

The annual average shipments continue about the same as they were previous to the war with Great Britain of 1812, viz.: nearly 400,000 barrels—while to Great Britain and Ireland the annual average quantity shipped was 125,419 barrels previous to 1815, and 157,815 barrels from the peace to 1840. From the latter year to 1846, our exports of wheat and flour to that kingdom greatly increased, and for the year 1847, of course, much exceed our exports of those staples to all other parts of the world combined.

Previous to the repeal of the British Corn Law, our best and principal trade with Great Britain was through Canada. For seven years previous to 1846, we sent into Canada 12,586,892 bushels of wheat (reducing the flour to wheat), while our direct trade to England, at the same time, amounted to only 7,764,588 bushels.

The exports from New York of breadstuffs other than flour, wheat, Indian corn and meal, from Sept. 1, 1846, to July 31, 1847 (being eleven months), have been so much larger than usual, that we subjoin them, as follows:

Rye flour	21,028 barrels.
Rye	993,869 bushels.
Barley	291,148 "

Peas and Beans	177,488 bushels.
Oats.....	416,147 "
Bread.....	50,498 barrels.

CROP OF WHEAT AND INDIAN CORN IN THE UNITED STATES.

The last annual estimate of the crops of the United States was made at the Patent office, for the year 1845. It is known that the crops of grain for 1846 were more abundant than those of the year previous, but we have not the means of forming a calculation on the increase.

The following are the estimates of the Commissioner of Patents, with regard to the crops of wheat and Indian corn for 1845. We have divided the United States into two sections—the first, embracing the Atlantic States and Michigan (as the markets of the latter are principally obtained via the Hudson river and the St. Lawrence)—the second, embracing the Valley of the Mississippi, excluding western Pennsylvania, Virginia and New York:

ATLANTIC STATES AND MICHIGAN.

	Wheat. Bushels.	Indian corn. Bushels.
New England States.....	2,383,000	11,944,000
New York.....	16,300,000	13,250,000
New Jersey.....	1,050,000	7,814,000
Pennsylvania.....	12,950,000	17,126,000
Delaware.....	440,000	2,713,000
Maryland.....	4,284,000	3,723,000
District of Columbia.....	15,000	85,000
Virginia.....	11,865,000	27,372,000
North Carolina.....	1,969,000	14,887,000
South Carolina.....	1,168,000	8,184,000
Georgia.....	1,571,000	13,320,000
Florida.....		723,000
Michigan.....	7,051,000	4,945,000

Total—Atlantic States, &c.	61,181,000	125,448,000
Valley of Miss.....	45,322,000	222,451,000

Total—United States.....106,503,000.....417,899,000

VALLEY OF THE MISSISSIPPI.

	Wheat. Bushels.	Ind. corn. Bushels.
Ohio.....	13,572,000	87,600,000
Indiana.....	7,044,000	26,625,000
Illinois.....	4,563,000	25,534,000
Missouri.....	1,525,000	15,625,000
Kentucky.....	4,789,000	54,625,000
Tennessee.....	8,240,000	70,355,000
Arkansas.....	2,437,000	8,250,000
Mississippi.....	378,000	2,167,000
Louisiana.....		8,200,000
Alabama.....	980,000	16,630,000
Wisconsin.....	971,000	673,000
Iowa.....	793,000	2,628,000

Total.....45,322,000.....222,451,000

The above estimates appear to us to be overrated in some instances, and underrated in others. If we assume the aggregate, however, to be about the total amount of the crop of 1845, and add a small increase for that of 1846, we may take the wheat crop of 1846 at 110 millions, and that of Indian corn at 460 millions of bushels.* On this basis it appears that our exports to foreign countries, for the year ending Sept. 1, 1847, amounted in quantity to about 25 per cent. on the crop of wheat, and less than 5 per cent. on the crop of Indian corn.

With regard to the crops of the present year, the accounts received from all quarters of the United States justify the belief that the harvests, both for wheat and Indian corn, will be more abundant than those of last year. Perhaps it would be safe to estimate an addition of 15 per cent. on the quantity of wheat raised over that of 1846, and 30 per cent. on the crop of Indian corn, making about 130,000,000 bushels of the former, and 600,000,000 bushels of the latter.

Should the expectations of these increased quantities be realized with regard to these important staples, and the promise of abundant harvests in Europe be also realized, thus cutting off a large proportion of the great demand from abroad, which has stimulated and sus-

* This is about the estimate of the Patent office; an addition of 10 per cent. being added to 1845. We rather regard the estimate as much too low.

tained prices for nearly a year past, it would seem reasonable to calculate on a much lower range of prices for grain of all kinds than our farmers have been favored with during the recent famine in Europe. A moderate competition, however, from abroad in the demand for bread-stuffs, may enable them to become sensible of the value of the home market.

The importance of the home market for the consumption of the grain crops is shown by the following estimate made some years since in the Philadelphia Commercial List, with regard to the disposition of the wheat crop of 1840, to which we add a similar calculation respecting the crop of 1846:

	1840.	1846.
	Bushels.	Bushels.
Estimated wheat crop	80,000,000	110,000,000
Used for seed, starch, &c.	7,750,000	10,000,000
Consumed for food in the U. S.	60,950,000	72,000,000
Exported to foreign countries.....	11,300,000	28,000,000

Of the Indian corn crop of 1846, we estimate that the 460 million bushels raised will have been thus disposed of:

Exported to foreign countries.....	22,000,000 bushels.
Sold to and consumed by non-producers	100,000,000 "
Consumed on the farms and plantations of the producers for human and animal food, seed, &c.....	338,000,000 "
Total.....	460,000,000 "

A calculation made, however, upon the basis of the Commercial List, for the last season, we admit, is not by any means a fair one. The foreign demand has increased beyond measure more than the home, from the absolute destitution in Europe and failure of accustomed supplies. High prices at home, too, would operate to check consumption. It stands to reason, however, from the nature of the two demands, that the one originating at home must be many times the greater of the two, though at the same time the foreign may give character to prices, and in general does.

The following table will show the export of Indian corn from the United States for 57 years:

TOTAL EXPORTS OF CORN AND CORN MEAL FROM THE UNITED STATES FROM 1791 TO 1847.

Year.	Bushels Corn.	Bbls. Corn Meal.	Year.	Bushels Corn.	Bbls. Corn Meal
1791.....	1,713,214	351,695	1808.....	249,538	30,818
1792.....	1,964,973	263,405	1809.....	522,049	57,260
1793.....	1,233,768	189,715	1810.....	1,054,252	86,744
1794.....	1,505,977	241,570	1811.....	2,790,850	147,426
1795.....	1,935,345	512,445	1812.....	2,039,999	90,810
1796.....	1,173,552	540,286	1813.....	1,486,970	52,521
1797.....	804,922	254,799	1814.....	61,224	26,438
1798.....	1,218,231	211,694	1815.....	830,516	72,634
1799.....	1,200,492	231,226	1816.....	1,077,614	89,119
1800.....	1,694,327	338,108	1817.....	387,454	106,763
1801.....	1,768,162	919,353	1818.....	1,075,190	120,029
1802.....	1,633,283	266,816	1819.....	1,086,762	135,271
1803.....	2,079,608	133,606	1820.....	533,741	146,316
1804.....	1,944,873	111,327	1821.....	607,277	131,669
1805.....	861,501	116,131	1822.....	509,098	148,228
1806.....	1,064,263	106,342	1823.....	749,034	141,501
1807.....	1,018,721	136,460	1824.....	779,297	152,723

Year.	Bushels Corn.	Ebbls. Corn Meal.	Year.	Bushels Corn.	Ebbls. Corn Meal.
1825.....	869,644.....	187,225	1837.....	151,276.....	159,435
1826.....	505,381.....	158,652	1838.....	172,321.....	171,843
1827.....	978,664.....	131,041	1839.....	162,306.....	165,679
1828.....	70,492.....	174,639	1840.....	574,279.....	206,063
1829.....	897,656.....	173,775	1841.....	535,727.....	232,284
1830.....	444,109.....	145,301	1842.....	600,308.....	209,190
1831.....	571,312.....	207,604	1843.....	672,608.....	174,254
1832.....	451,230.....	146,710	1844.....	825,289.....	247,882
1833.....	437,174.....	146,678	1845.....	840,184.....	269,030
1834.....	303,449.....	149,609	1846.....	1,826,068.....	298,790
1835.....	755,781.....	166,782	1847.....	17,272,815.....	945,039
1836.....	124,791.....	140,917			

Art. IV.—INTERCOMMUNICATION BETWEEN THE ATLANTIC AND PACIFIC OCEANS.

The following letter we publish without comment. It is proper that either side be heard in all matters, and that all the facts of a case be elicited. The interests of truth are ever subserved in the conflict of opposing statements. The subject discussed, in any view of it, is worthy of the attention of the American people. It has risen in dignity and importance. We cherish no rival schemes. It belongs to the whole country to reach the Pacific ocean; and the best way to attain this end *we will advocate*. The paper we now present is an able one. The statistics have been collected and embodied with great care. We earnestly invite attention to the whole subject, on the part of those who would decide for themselves. All may comprehend it without difficulty.—EDITOR.

DEAR SIR—An article in your estimable Review for July, from Professor Forshey, of Louisiana, on the subject of a railroad to the Pacific, seems to call for some remarks from me, as it directly alludes to and compares my project with one for a more Southern route.

When I first gave my undivided attention to the subject of a communication across our continent, and long before my proposition of 1844 was made public, I examined the whole continent, as far as its topography was known, from Panama to the Arctic ocean.

First. It appeared that the more narrow points, the shortest distance across, would be the most desirable, therefore Panama and all the Isthmus of Mexico claimed my attention. The first object in such a work being to change the route for the commerce of Europe with Asia so as to benefit ourselves, on examination, I found it could not be done here: because, if a ship canal were constructed *anywhere* it could only be done by a tunnel through from ocean to ocean, the practicability of which is very doubtful, and under any circumstances at an enormous expenditure, probably doubling any, the highest estimate yet made. A railroad could not answer, because there is not sufficient water on either side, nor on the entire Gulf coast, to form suitable harbors for ports of depot; because the mountain torrents in the rainy season would be likely to sweep away the work or render it useless; because the climate is such that population could not be sustained either to build the work or to carry on the commerce, make the transshipments, &c., &c.; because the expenses of such commerce would be greatly increased beyond what they now are,

and because the time and distance would be increased, as, for instance, take the proposed canal at Nicaragua :

From London to Valparaiso, through the proposed canal to Realijo ..	5,478 miles.
Thence to Valparaiso	3,590 "
	8,978 "
From London to Valparaiso around the Cape	9,400 "
Difference in favor of canal, which would not change route	422 "
From Sidney to England, via proposed canal	14,848 "
" " " via Cape Horn	13,848 "
Against canal	1,000 "
From Canton to England, via canal S. W. M.	15,558 "
" " " via Cape Good Hope	14,940 "
Against canal	618 "
From London to Singapore, via canal N. E. M.	16,578 "
" " " via Cape Good Hope	14,350 "
Against canal	2,228 "

Comment is unnecessary.

This abandoned, I followed up the continent. I did not consider the difficulties of getting a right of way through Mexico as an impediment, because interest always governs; but I have not yet been able to find any place for a route on all the continent, above the Isthmus and below 42½° north latitude, where a passage can be had short of an elevation of about 12,000 feet, and I did and do consider any route off from our territory an insurmountable objection. Any Southern route must be subject to almost or quite insurmountable difficulties, from immense soft bottom lands, impossibility of bridging streams, and the constant yearly flooding of the Rio Grande and all the streams to be crossed, which would destroy any railroad and its operation.

These are difficulties which must stare any engineer full in the face, and there is no way to overcome them. Then, as to climate, the same insurmountable difficulties as across the Isthmus. Can commerce be carried on through Louisiana and Texas, except in the winter months? and would Mazatlan, 23½° north latitude, worse even than at 7° or 10° in climate, from its position and country,* answer for the great emporium for all the commerce of Europe with all Asia? And can our animal and vegetable products be carried in safety through such a climate? Could we by such a route expect to avail ourselves of the vast markets of Japan, of China and of all Asia, which would be opened to us by a proper route across our continent? My own experience in such climates tells me we could not; and the distance from Europe could not be shortened by this route sufficiently to force a change, as will be seen—

From London to Charleston, 80° long., each 47 miles.....	3,760 miles.
From Charleston to Mazatlan, Mr. Forshey's route	2,170 "
From Mazatlan to Canton, 140° long., which on this parallel of the globe with currents and trades, may be estimated at 60 miles each,	8,400 "
	14,330 "

* Its coast is subject to periodical gales, so severe as to render it extremely dangerous, if not impossible, of access at certain times.

Subject, certainly, to not less than 1 cent per ton weight per mile, on 2,170 miles, is \$21 70 or \$10 85 per ton measurement of teas, or the like merchandise; subject to transshipment at Charleston, transshipment or ferriage across the Mississippi, the Rio Grande, and other streams which cannot be bridged, and we see we gain in distance from Canton to London only 610 miles. Comment is unnecessary here.

I have examined this subject and devoted myself to this object, not for a Northern or Southern route, not for New Orleans or New York, Boston or Charleston; not for any place or city, but for the whole United States—for *all*, from the Pacific to the Atlantic, and from the Gulf to Maine. My object has been to find a route, the means for accomplishing which should be produced by itself—a route which, by shortening distance and time, lessening expense, affording facilities for commerce and intercourse, would give us the entire control of the commerce of Europe with all Asia, and increase our own far beyond the power of the imagination to estimate, and at the same time spread and distribute its vast, its incalculable benefits, over every section and interest of our wide-spread republic; and I think an impartial examination of the subject, in all its bearings, will plainly show that I have not failed. I base all my calculations upon the only possible means, the wilderness land, by which the work can be accomplished at all on any route; therefore, the route must be where the road can bring into life and action this *only* means; and the route which circumstances forced me to select is the only route which will do so.

From Lake Michigan to the pass in the Rocky mountains, as will be seen by the accompanying map, No. 1, is unquestionably the best and most feasible route for a railroad on the face of the globe—without rock, mountain, or even hill; no wide, soft bottom lands, no streams which cannot be bridged, and no flooding of the streams to destroy the road or impede its operation; one-half this distance the route is parallel with and between rivers, and does not require a single bridge—the whole distance on a regular gradual ascent, a great part of which not over 6 feet per mile, and no one mile over 25 feet. From the pass to the ocean, from the scale of elevations taken daily by Col. Fremont, it will be seen that the route is not a difficult or expensive one. It would seem that the God of nature had fixed this as the route. As the Red sea in olden times, so here the mountains are opened for our passage, that we may carry light, life and liberty to the darkness and heathenism of all Asia; and the same God who commanded the Israel of old has pointed out to us, the young Israel, the way, given us the means to accomplish his great purpose, and shown that we are his instruments to encircle the globe with the spirit of life and truth. The application of man's labor with a rich reward, will bring forth and accomplish all.

It will be seen by the accompanying map, No. 2, that on this line, this belt of the globe, are nearly all the population and commerce of the world—the most genial climes and fertile soils—producing the great amount of breadstuffs and meat, the sustenance of both man and commerce; and by examination of the map it will be seen that this is the most central, most convenient and accessible to all the Atlantic and gulf cities; the southern cities having advantage in distance—

Philadelphia 100 miles nearer than New York ; Baltimore 100 miles nearer than Philadelphia ; Richmond nearer than either ; Charleston nearer than New York, and New Orleans in a line by which a railroad can be built not 800 miles from it. And we now see all the States, from the gulf to Maine, pushing with all possible force all their roads to this very point, in order each to share in the rich commerce of that immense population which is to occupy those incomparably rich and overwhelmingly productive States north and west of the Ohio river.

South Carolina, Georgia, and Tennessee are straining every nerve to approach the mouth of the Ohio. Virginia yet slumbers, but she will awaken to the rich prize within her reach, and push on to Cincinnati. Baltimore, impatient for the race, will not be checked even by the mountain barriers, but leaps on to Wheeling, the first to take the purse. Nor will Philadelphia or New York be inactive ; on, onward, is the cry of all for the rich prize beyond the mountains. And if such be the inducement now, what may we expect when the great highway of nations is before them all, from which each must receive its proper share of all the commerce—all the wealth of the world ? At the same time there will be brought into life and use an immense country—the richest and best on the globe—embraced within the routes from each Atlantic city, and from ocean to ocean, as will be seen by the annexed map, No. 2. Our vast republic will be brought to the grand centre in two and a half days, and the entire world to the same centre in twenty-five days ; making the distance from any Atlantic city to Oregon or California not over 3,000 miles—at 30 miles per hour, requiring less than five days ; thence to Japan, but 4,000 miles, by steam, but fourteen days ; to Shang-hai in China, at the mouth of the great Yang-tse-Keang, which at a short distance from its mouth crosses the great canal to Pekin, and where all the commerce of this vast empire of 500,000,000 souls now centres, and where all its foreign commerce must centre, when this route is opened would be from New York but 8,400 miles, requiring 24 days ; to Australia, 9,000 miles, requiring 26½ days ; to Singapore, where all the commerce of Europe with India would centre, with this route open, is but 10,660 miles, requiring but 29½ days ; and all this commerce and intercourse by this route might be carried on by steam, because there is an abundance of coal at Vancouver's Island, at Japan, China as low as Formosa, and the high latitudes of Australia, and the distances from point to point are within the capacity of a vessel to carry fuel, which could not be done from Mazatlan or the Isthmus. The commerce and intercourse from this route with all Asia, and even to Africa, may be carried on along the coast, never out of sight of land. What a prospect, what a glorious prospect ! Very soon the various lines of steamers from the Oregon to Japan, to China, to all the islands, and to all Asia, would far outnumber those of any of the Atlantic cities of the present day.

In Mr. Forshey's 1st comparison, he says : " Connection between the Pacific and Atlantic at any of the points named, Memphis or South, will answer all the purposes for the entire valley, as the navigation to and from these points is never intercepted." In this I cannot agree with him ; the Ohio certainly drains a very im-

portant part of that valley. The Herald of the 3d inst. says, navigation of the Ohio river was,

Places.	Time.	State of Water.
Louisville.....	August 29	4 feet 3 inches falling.
Wheeling.....	September 1.....	3 " 6 " "
Pittsburgh.....	" 1.....	3 " " "
Cincinnati.....	August 25	4 " " "

and we believe it is well known that the falling continues through the autumn, with no expectation of any material improvement till February; that the water is often much lower than at present—it has been represented to me as low as 15 inches. Now we all know that at the present stage navigation is rendered difficult and expensive, and not equal to the wants of the country. Surely the Mississippi, from the Ohio to St. Louis, even, cannot be considered equal to answer all the purposes wanted; and as we ascend either the Mississippi or Missouri the difficulties increase, so that for the greater part of the year these streams may be considered useless. These are facts known to all who are acquainted with the commerce and intercourse of that great valley, and that the streams generally are now used as a matter of prime necessity, but so soon as the means can be obtained, they will be abandoned for railroads.

Mr. Forshey in his 2d comparison says: "That from the Mississippi, where he proposes his terminus, to Mazatlan, is not more than 1,500 miles; whereas Mr. Whitney's route is 900 miles greater." Now let us see if this be so: first we should ascertain where we set out from to get to Mr. Forshey's starting point on the Mississippi, and from thence where to go.

First I will correct some errors which have been published to the world, which appear in Mr. Breese's report, and have originated from my having taken the various estimates of different travelers without calculation or approach to certainty. In Mr. Breese's report the distance from the lake to the ocean is estimated at 2,630 miles, and from the lake to the Atlantic estimated at 1,000 miles; while we find the city of New York in the meridian of 74° west from Greenwich, and the mouth of the Columbia 124° , giving 50° of longitude from point to point, which on this parallel do not measure over 47 miles to the degree, making from ocean to ocean only 2,350 miles. From the measurement and calculations of Mr. Darby, so well known and justly celebrated for his calculations and statistics, it appears that on the curve of 30° north latitude, starting near St. Augustine, over New Orleans, Louisiana and Texas, over Sonora and to the Pacific, at or near Cape Gonzalo, is a range of 35° of longitude, which in that latitude, he says, equals nearly 2,100 statute miles; on the curve of 35° north latitude commencing near Ocracock inlet, south of Cape Hatteras, through North and South Carolina, through Georgia, Alabama and Mississippi, to the river about 10 miles south of Memphis, thence about 100 miles below Santa Fé, and over the Spine of the Rocky mountains to the Pacific, near Cape Guadalupe, over a range of 46° of longitude, which in that latitude is equal to 2,542 statute miles; on the curve of 40° north latitude, commencing at Tom's river, Monmouth county, New Jersey, passing near Philadelphia, Wheeling, Virginia, Columbus, Ohio, through Indiana, northern part of Mis-

souri, then over the chain of the Rocky mountains to the Pacific, near Cape Mendacino, through 51° of longitude, equal in that latitude to nearly 2,700 statute miles. Again, on the curve of 45° north latitude, near the mouth of the River St. Mary, Nova Scotia, through Maine, New Hampshire, Upper Canada, Michigan, Iowa, and on over the Rocky mountains to the Pacific, south of the Columbia river, a range of 63° of longitude, which in that latitude is equal to a little over 3,000 statute miles.

I will now show the distances from the different Atlantic cities to Prairie du Chien, where the Pacific road would probably cross the Mississippi, and where all would join it.

First, from New York to Lake Erie, $78\frac{1}{4}^\circ$ W. long., as per railroad report.....	483 miles.
Thence to Prairie du Chien, W. long. $90\frac{1}{4}^\circ$, is 12° long.; but add 2° for detour, and it is 14° long.	658 "
	<hr/>
	1,141 "

And Boston would be 200 miles more, and Philadelphia 100 miles less distant; and Baltimore, as per railroad report, to Wheeling.....	384 miles.
Thence to Prairie du Chien on nearly a direct line, but allow for detour, &c., say.....	564 "
	<hr/>
	948 "

From Charleston to Chattanooga.....	430 "
Thence to Natchez, Mr. J. E. Thompson's survey.....	152 "
Thence to the Ohio, 100; but add 15 for detour.....	115 "
Thence to Prairie du Chien on a line.....	370
Add for detour, &c.....	30—400 "
	<hr/>
	1,097 "

From New Orleans on a line, 13° latitude, at 60 miles, is.....	780 "
But add for detour.....	50 "
	<hr/>
	830 "

Now, from Prairie du Chien, $90\frac{1}{4}^\circ$ W. long., to the pass in the Rocky mountains, $109\frac{1}{4}^\circ$ W. long., is 19° long., each 47 miles....	890
Here a road may be constructed in a straight line, but allow for detour.....	50—940 "
From the pass to the Pacific, long. 124° W., is $14\frac{1}{4}^\circ$, each 47 mil.	682
Allow for detour, &c.....	200—882 "
	<hr/>
From Prairie du Chien to the ocean.....	1,822 "

Thus, then, it appears that by the southern route it would be	
From Charleston to Vicksburg.....	771 "
Thence to Mazatlan.....	1,490 "
	<hr/>
From Charleston to Mazatlan.....	2,261 "
Thence to China, 140° long., is.....	8,400 "
	<hr/>
From Charleston to China, southern route.....	10,661 "

And by the northern route, as before stated,	
From Charleston to Prairie du Chien.....	1,097
Thence to Oregon.....	1,822
	<hr/>
From Charleston to the Pacific.....	2,919
Thence to China, $110\frac{1}{4}^\circ$ long., on this parallel equal to.....	5,400
From Charleston to China, northern route.....	8,319 "
	<hr/>
Difference in favor of northern route.....	2,342 "

And the following table will show the distances from all the principal Atlantic cities and New Orleans to China by both routes :

A Table, exhibiting the Distances from all the principal Atlantic Cities (with New Orleans) to Charleston, to Vicksburg, to Mazatlan on the Pacific, and to China, for the southern route; and to Prairie du Chien (near where the Pacific road would cross the Mississippi), to Oregon, to the Pacific, and to China—with amount of differences both to the Pacific and to China.

	Southern Route.				Northern Route.			Dif. to Pac		Difference to China, in favor of N. route.
	To Charleston.	To Vicksburg.	To Mazatlan.	To China.	To Prairie du Chien.	To Oregon, Pacific.	To China.	In favor of S. route.	In favor of N. route.	
From Charleston	771	2 261	10 661	1 097	2 912	8 319	658	..	2 342	
" Richmond	427	1 198	2 688	11 085	950	2 779	8 172	81	..	2 917
" Washington	554	1 325	2 815	11 215	988	2 810	8 210	..	..	5 3 005
" Baltimore	594	1 365	2 855	11 255	948	2 770	8 170	..	..	85 3 085
" Philadelphia	709	1 480	2 970	11 770	1 041	2 863	8 263	..	..	107 3 507
" New York	796	1 567	3 057	11 457	1 141	2 963	8 363	..	..	94 3 094
" Boston	996	1 767	3 257	11 657	1 341	3 163	8 563	..	..	94 3 094
" New Orleans	415	1 905	10 305	830	2 652	8 052	747	..	..	2 257

And as the principal interior cities and States have a very important interest in the matter, let us show them exactly where they will stand; in order to do which, we will continue the table of comparison. And as Mr. Forshey says "they are suitable to all purposes," I will in most cases take the river distances for the southern; but as the building of the northern route will open railroad communication to almost all the places named, the railroad distance will be taken in most cases for that route.

From Louisville	1,001	2 491	10 891	430	2,252	7,652	..	239	3,229
" Cincinnati	1,132	2,622	11,022	450	2,272	7,672	..	350	3,350
" Wheeling	1,496	2,986	11,386	560	2,382	7,782	..	604	3 604
" Pittsburgh	1,588	3,078	11,478	610	2,432	7,832	..	646	3,646
" Cleveland, via Pittsburgh	1,732	3,223	11,622	517	2,339	7,739	..	863	3,863
" Buffalo, via N. York	1,863	3 353	11,755	803	2,625	8,025	..	728	3 730
" Detroit	1,425	2,915	11,315	486	2,308	7,708	..	605	3 607
" St. Louis	803	2,293	10,693	300	2,122	7,522	..	171	3,171
" Alton	826	2,316	10,716	275	2 097	7,497	..	219	3,209
" Galena	1,208	2 698	11,098	60	1,882	7,282	..	816	3,816
" Chicago	1,070	2,560	10 960	210	2 032	7,432	..	528	3,528
" Prai. du Chien	1,279	2,761	11,161	..	1,822	7,222	..	939	3,993

Mr. Forshey says that at Vicksburg, or near it, would be the most convenient place to concentrate all the commerce for the Pacific, much more so than where it is proposed for the northern route to cross the Mississippi. By taking the distances as in the above table for the Atlantic cities, *via* Charleston to Vicksburg, and for the cities direct to Prairie du Chien, as proposed by railroads, the difference will be found largely in favor of the northern route; and for the interior cities, towns and States, still greater: for instance, take Cincinnati, and we find a difference in favor of the northern route of 652 miles; take Pittsburgh, the difference is 978 miles; Cleveland, 1,225

miles; Buffalo, 1,060 miles; Detroit, 939 miles; Chicago, 860 miles; Galena, 1,140 miles; St. Louis, 503 miles.

Having completed the comparisons of distances, I will now take up the 3d comparison, "that the construction per mile will be much greater, because of mountain barriers," &c. I think these objections must have been made without a proper examination of the facts. I have before described my route to the pass in the mountains as more feasible than any other route on the face of the globe; and from the pass to the ocean is more feasible than the last 420 miles of Mr. Forshey's, or even any of the principal part of the entire route, else I am altogether misinformed. How Mr. Forshey is to get over the many marshes, soft bottom lands, hills, mountains, and ravines, which have been described to me, at a cost so low, when we know that the superstructure alone, with a rail of 64 to 75 lbs. to the yard costs \$10,000 per mile, is beyond my comprehension, and we know that none but the very best road will answer here.

I have not yet learned that we can get to the ocean short of an ascent of about 12,000 feet. But I hope Mr. Forshey is correct, as the time may come sooner than we imagine, when that country will become settled with a different people from the present, and their wants will then build the road, if practicable, but not till then; and now for the commerce of Europe with Asia. His fourth objection or comparison, "that after its construction, 25 years hence, during a considerable portion of the year it would not be available; severe winters and deep snows would render it impracticable for two or three months of each year, whereas the southern route would be always practicable," &c. I do not suppose Mr. Forshey wishes us to understand him to say there will be more snows and severer winters 25 years hence; though it would appear so, else he has not examined this part of the subject. As we go west from the great lakes it is milder, and less snow on the mountains. In Wisconsin, the snow seldom falls over a foot deep all winter, and this dry, not thaw and freeze. As we go into and through the mountains, the elevation, of course, increases the cold. The snow falls about Christmas, and remains on till May; its falls not frequent, and dry; no rains to thaw it.

Mr. Fitzpatrick, whose experience for years renders him the best authority, says that "at Fort Laramie very little snow rarely lays on the ground; has never seen a depth of snow more than 15 inches, and that very rare; never remains more than one or two days; thence to the pass continues during the winter about three months, depth 15 to 18 inches; thence to Greene river a decrease in depth, but remains longer than the east side of the pass; from Greene river to Bear river, crossing a range, about the same as at the pass; thence falling on to Bear river, it is rare that snow is found at any time, but descending the river northerly to Soda Springs, snow is again found 1½ to 2 feet deep; then, as you come on to Fort Hall, no snows, and very little on to Lewis Fork, to an immense plain; from this plain we get into a branch of Salmon river, without crossing a divide, and no more snow of consequence to the blue range, when snow is again found 2 feet deep; then there is no snow or winter to the ocean.

R. Campbell, Esq., a highly respectable and very intelligent merchant of St. Louis, spent three winters in succession, and a part of the fourth in the mountains from the pass to Fort Hall, and on to the head of Salmon river. He says that one winter *only* the snow fell 3 feet deep; fall commences 1 to 4th Novéber (does not vary in time); very little, and melts off. At Christmas, the heavy fall commences (considers its regularity as to time remarkable); the falls are not frequent, and are dry, remain till April; some winters but very little, so that they could travel over most of the country. They found buffalo all winter living on the grass under the snow, which they root up. Mr. Campbell's animals were sustained in same manner, and by same means. He says that there are three routes from the pass to Fort Hall, all good.

From these statements from the most respectable source, and from many others, it appears that we have nothing to fear from snows in the winter, and that the route would not be impeded at all. The snows and winters are not so severe as in New York and New England, where delays are scarcely noticed, and much less than in a milder climate. I have witnessed more delays and difficulties between Baltimore and Washington, and Richmond, than in any of the northern States, because where the winter is severe, the snow falls dry and can be removed with machinery, when the rail remains free until another, which is not so frequent as in milder climates, where frequent sleet and rain, freeze and thaw, cover the rail with ice, much more difficult to remove than the deepest snow.

On the Baltimore and Ohio road, from Cumberland to Frostburgh, on a grade of 135 feet to the mile, a locomotive, cars and all, passed up through drifts of snow eight and ten feet deep without difficulty, leaving the rails clear.

Having the most satisfactory accounts assuring us there is in the mountains but little rain, little and unfrequent snows, and the snow very dry, easily removed by machinery, so that we need not expect interruption at all, I take the 5th objection, that "the northern route must be liable to difficulties of passing through an uninhabitable region." If the country was now occupied, the land, *the only* means, could not be had to build the road, and the project must be abandoned, as, like Mr. Forshey's route, no one would subscribe to the stock. In the parts which are represented sterile, the road will create such facilities as would most probably render nearly all suited to man's use in some way; and the business of the road itself would cause settlement throughout its line.

Mr. Forshey says: "This will be borne in mind, however, that all the expenses of transportation to the Mississippi Valley on his (Mr. Whitney's) route, from its greater length, will be 30 per cent. greater than on the southern route, and the cost of transportation from ocean to ocean full 40 per cent. greater." Now let us look into this part of the subject, and I will make Charleston our terminus on the Atlantic for both routes.

First: Mr. Forshey's road can be built only by an appropriation of capital, must earn dividends or the investment is a bad one, and tolls exacted to meet its wants.

A railroad with business to its *nearly* full capacity, can transport

merchandise and earn fair dividends at one cent per ton per mile, therefore I will assume one cent per ton per mile for Mr. Forshey's route—which by his estimate is from Charleston to Mazatlan 2,261 miles—at one cent is \$22 61, thence to China at a comparative freight with other distances, say per ton weight \$20 50; amounting to \$43 11 for a ton weight of teas from China to Charleston, via southern route, or equal to two tons measurement of Young Hyson teas, heavier than any other description, and compares well in weight and bulk with flour—say the third class article in weight and bulk.

It will be seen by the foregoing table and statements, that from Charleston to Prairie du Chien is 1,097 miles, which road would be subject to earn dividends, and, at one cent per ton weight per mile, would be - - - - - \$10 97
 thence to the Pacific (Oregon) is 1,822 miles; but, as the road would be built from the public lands, it would not be subject to tolls for dividends, and one-half a cent per ton weight per mile would be equal to repairs and operations—say from Charleston to Oregon - - - - - \$9 11

or \$2.53 less than the southern route; thence to China, 5,400 miles *only* on this route, at a comparative freight, say \$14 00

from Charleston to China, via the northern route, - - - \$34 08

or \$9 03 less than by the southern route, making Charleston the terminus for both. The following table will show the exact difference between the two routes for all the cities north of Charleston; and also those in the interior. I have assumed that all the routes from Boston to Charleston, to the State of Ohio, or to the Ohio river, will be completed, and run on in one, or separately, through Ohio, Indiana, and Illinois, to join this northern route where it would cross the Mississippi river; that the commencement of this northern route would greatly accelerate their progress and completion, I think, cannot be doubted; and those different routes would accommodate directly all the interior places named, as well as many more; it is therefore that I have estimated freights on all these routes at one cent per ton weight per mile; and I have done the same for all the routes from the Atlantic cities to Charleston, which, I think, is below what the actual cost will be, as the amount of freight would not be large; whereas the routes leading directly to the Atlantic, through the rich productive States of Kentucky, Western Virginia, Ohio, Indiana, Illinois, &c., would be, even without the Pacific road, so fully employed, as to allow the reduction of tolls to the lowest number. While for the southern route I have assumed, that under no possible circumstances, should the road ever be built, can it draw business to it sufficient to induce the building of railroads from the North to join it; and as the rivers must be the only channels of communication, I have therefore taken the lowest river price, at the season when the streams are fully navigable, as the prices have ranged for four years past, not including this year of high prices; I have, too, taken the lowest article of merchandise, flour; for towns or cities not directly on navigable streams, I have taken the shortest land carriage, at two cents per ton per mile; and, as it is well known that the Ohio, from Lou-

isville down, is obstructed by low water, from middle of July to 1st December, and from Cincinnati by low water and ice for a greater length of time; and that the Mississippi, from St. Louis to its junction with the Ohio, is obstructed by ice and low water for about seven months of the year; it will be perceived the estimate and comparison is more than fair for the southern route. I have not even considered the great dangers, and losses of life and property in navigating those streams. Mr. Calhoun's able report estimates for 1841-2 the annual aggregate loss at 107½ boats, valued at \$1,820,200. An addition should have been made to my estimates for insurance; for instance, a ton weight of teas, average cost \$80 00, from China to St. Louis, via southern route, would be subject to \$2 farther charge for insurance. Nor has anything been estimated for the many transshipments on the southern, which would be avoided on the northern; because on the northern route, a loaded car would go from any starting point, from any Atlantic or interior city, direct to its destination, or to the ocean without change. In my estimates it has been my endeavor to give all possible advantage to the southern route, as the table will show.

The following table exhibits the cost of transit for one ton weight of merchandise from the Atlantic cities to Charleston, at one cent per ton per mile; thence to Vicksburg 771 miles or \$7 71, at same rate; thence to Mazatlan on the Pacific, 1,490 miles, or \$14 90; and thence to China, 8,400 miles, is \$20 50 more; and from the interior cities to Vicksburg, estimated at the lowest river prices, and thence to Mazatlan and China, as above, for the southern route; and for the northern route from the same places to Prairie du Chien, at one cent per ton per mile; thence to Oregon on the Pacific, 1,822 miles, at ½ cent per ton per mile, is \$9 11; and thence to China 5,400 miles, or \$14 per ton. Showing the totals at Charleston, Vicksburg, Mazatlan, and China, for the southern and for the northern route; the totals at Prairie du Chien, Oregon, and China, with difference in favor of northern route. Prairie du Chien over Vicksburg, Oregon over Mazatlan on the Pacific, and northern over southern route to China.

	SOUTHERN ROUTE.				NORTHERN ROUTE.			Differ. between Prairie du Chien and Vicksburg favor of former.	'Difference to Ocean favor of North n. Route.	Difference to China, favor of North n Route.
	Total to Charleston. miles.	Total to Vicksburg. miles.	Total to Mazatlan.	Total to China.	Total to Prairie du Chien.	Total to Oregon.	Total to China.			
From Richmond to	\$4 27	\$11 99	\$28 98	\$47 38	\$ 9 50	\$18 61	\$32 61	\$ 2 48	\$ 8 97	\$14 77
" Washington	5 54	13 26	28 15	48 65	9 88	18 99	32 99	8 37	9 18	15 66
" Baltimore	5 94	13 65	28 55	49 05	9 48	18 59	32 59	4 17	9 96	16 46
" Philadelphia	7 09	14 80	29 70	50 20	10 41	19 52	33 52	4 40	10 18	16 88
" New York	7 96	15 67	30 57	51 07	11 41	20 52	34 52	4 98	10 05	16 53
" Boston	9 96	17 67	32 57	53 07	13 41	22 52	36 52	4 28	10 05	17 45
" New Orleans .....	.....	3 00	17 90	28 40	8 30	17 41	31 41	.....	49	6 80
" Louisville .....	.....	5 00	19 90	40 40	4 30	13 41	27 41	70	6 49	13 80
" Cincinnati .....	.....	6 00	20 90	41 40	4 60	13 61	27 61	1 50	7 29	13 79
" Wheeling .....	.....	8 00	22 90	43 40	5 60	14 71	28 71	2 40	8 19	14 69
" Pittsburgh .....	.....	8 90	23 90	43 40	6 10	15 21	29 21	1 90	7 69	14 19
" Cleveland .....	.....	12 00	26 90	47 40	5 17	14 26	28 26	6 83	13 69	19 12
" Buffalo .....	.....	18 63	33 53	54 05	8 08	17 14	31 14	10 60	16 80	22 60
" Detroit .....	.....	12 00	26 90	47 40	4 88	13 97	27 97	7 14	12 83	19 43
" St. Louis .....	.....	7 06	21 96	42 40	3 00	12 11	26 11	4 00	9 79	16 29
" Alton .....	.....	8 00	22 90	43 40	2 75	11 86	26 86	5 26	11 04	17 54
" Galena .....	.....	14 50	29 40	49 90	.....	9 71	23 71	13 90	19 69	25 59
" Chicago .....	.....	11 75	26 65	47 15	2 10	11 21	25 21	9 65	15 44	21 94
" Prairie du Chien .....	.....	14 50	29 40	49 90	.....	9 11	23 11	14 50	20 29	26 29

A comparison of time has not yet been had, which would be greatly in favor of the northern route. A mild or southern climate enervates the system, so that, the world over, we do not expect the same habits of laborious industry or the same action, as where necessity forces all man's energies and efforts. Therefore we could not expect the same speed or regularity of operation, and from Mazatlan to China would require from twenty to thirty days longer for a sail vessel, than from Oregon to China; in fact the better route for a vessel from Mazatlan bound to China, would be via Oregon; and for steamers the only route, the only means of supply for fuel.

As regards local or southern interest, which I think manifests itself in Mr. Forshey's remarks, it should not be permitted to enter into this subject AT ALL; it is purely a national question, in which all and every part of our wide-spread country is to share equally. The means proposed for its accomplishment are national, and all have a claim to an equal share in the great results promised, which cannot be attained on any other than the route proposed. But I feel myself warranted in saying that the southern interest has not been considered or understood in Mr. Forshey's remarks; believing I have already shown that taking Charleston as the terminus on the Atlantic for both, and making Charleston the only point of interest in the route, that the advantage would be in favor of the northern route of 30 days in time, in distance to China of 2,342 miles, of \$2 53 per ton weight for transit to the Pacific, and \$9 03 per ton weight gain for transit to China.

And is this all that Charleston would gain by the northern over the southern route? With this road commenced, South Carolina, Georgia, Alabama, Tennessee and Kentucky, would push their united efforts to complete a road on to Illinois, where an appropriation of government lands (on the line now unoccupied and without means of communication with markets) nearly worthless, and about being reduced by the graduation bill to, say, 25 cents per acre, would complete a road to join this northern route at the point where it crosses the Mississippi, at the same time bringing into use and value the immense amount of government lands through the entire centre of that great State. What would then be the position of Charleston? Why, in addition to her full share of the commerce of all the world over this great highway of nations, she would have a flood of all the vast products of the rich States of Missouri, Illinois, Indiana, Kentucky, Tennessee, and others, pouring in a torrent of commerce, of prosperity and wealth, from that immense valley which she reaches at the very centre (the junction of the two great rivers, distant less than 700 miles), a rich basin capable of sustaining four-fold the population of the same space on any other part of the globe. It would fill to overflowing her wharves and warehouses in a manner scarcely dreamed of now. Can there be any mistake in this? None; because all that is wanted for its fullest realization is the cheap means of transit which this route alone can afford, and the certainty of realization would bring forth ample means for its accomplishment.

Look at the fact, that from Prairie du Chien to Charleston, ten barrels of flour may be transported for \$10 97, or one dollar and ten cents per barrel, requiring but about three days' time, and in the same

comparative proportion for a shorter distance; and who can doubt the result? Surely *all* must see the true interests of not only Charleston but all the South!

The tables which I have exhibited will show the true position of all the northern cities and States. Comment is unnecessary. If Charleston gains so much by the northern route, the northern States and cities would be still the greater comparative losers by the southern one. And for the great States in the Mississippi valley, which are by this route to be made not only the centre of this vast continent, but the centre of the entire globe, the great highway and thoroughfare for all the world, which is to be controlled and sustained by it—if Charleston gains so much, as before shown, what would not they lose by the southern route? Their position, with the northern, would secure to them the great highway of nations, and all the necessary avenues or channels from the different Atlantic States to it, free from cost for construction. Thus, I think, it must appear as clear as light, that the route which by circumstances I have been forced to select, is the only one embracing *all* the interests of *all* the country; and that, considering everything, there is no other route where we can hope to accomplish this great work; no other where the only means—the wilderness lands—can be made by the labor of man alone to accomplish everything that is desired—richly rewarding the labor that has produced it, and extending comfort and happiness to millions now in destitution and want; no other where the streams can be bridged, and one uninterrupted, unimpeded communication made from ocean to ocean; no other where timber can be had for the road and taken on it for the settlement of more than 1,200 miles of country existing without it; and, finally, no other which does not require one dollar from the treasury, from individuals, or the people, but will add millions. Even the amount created by itself out of the waste lands, would be distributed among the people for labor and materials. Why, then, object, or bring opposing routes which can in no way have opposing interests?

Mr. Forshey proposes individual means for his route; and, certainly, no one can object to that; but we can doubt the possibility of finding subscriptions. For the northern, however, we have seen, no means are required but the waste lands, the greater part of which are without value, and can never be made available without the road. Thus, without pecuniary outlay, may we control and command the world, commercially, morally, and politically; add millions of wealth to our treasury and nation, quadruple our population, and obtain the means which are to build Mr. Forshey's road, and all others which the wants of the people and country may demand.

Truly yours,

A. WHITNEY.

New York, Sept. 8, 1847.

J. D. B. DE BOW, Esq.

New Orleans.

Art. II.—THEORIES OF CREATION AND THE UNIVERSE.

NEBULÆ—FORMATION OF SUNS AND WORLDS—LAWS OF THE PLANETS—THE EARTH—LICHENS—MOSESSES—ZOOPHYTES—MOLLUSCÆ—VEGETABLE NATURE—GEOLOGICAL STRATA—GRADATION OF ORGANIZED BEINGS—DISTINCT ORGANIZATIONS—FINAL CAUSES—MAN AND NATURE.

THE elder Herschel, to whom the world is so largely indebted, discovered specks or islands scattered irregularly through space, of a light, hazy appearance, which, when closely examined, appeared to consist of a self-luminous vapor. Many of these have been resolved into clusters of stars; others seemed to defy the power of the largest instruments, and remained until recently, wholly irresolvable. The middle star in the Sword of Orion, is the most interesting of these irresolvable bodies; and until March, 1846, it obstinately defied all efforts to resolve it. Another phenomenon was discovered by the same great pioneer, of a like character, but differing from the former in the important fact of a distinct nucleus in the central part, with an increasing light from the borders to the centre. These were called stars with burrs. The nebulæ were considered the elementary or rude material, which the second phenomena exhibit in a more advanced condition; as, the star in Andromeda; and these again, as only one step in advance toward the perfect star. These phenomena gave birth to the Nebular Hypothesis, which strengthened La Place's celebrated theory of the creation of the solar system. It was assumed that the stars and planets were originally the same as these self-luminous clouds; and that they were advanced as the star in Andromeda, and from that structure through the various stages of world-making, until prepared for the habitation of animate nature; and left to perform their parts with the innumerable sisterhood; and that these nebulae themselves were but detached parts of a universal "fire mist," which *at the beginning* pervaded all space.

La Place adopted the nebular hypothesis—as it favored the cosmogony which he had previously advocated; the evidences of which he found in the general appearances of harmony that prevailed throughout the mechanism of the whole system; and which could most satisfactorily be accounted for, by supposing the planets to have been thrown off in their orbits by the sun, while contracting its dimensions under the influence of radiation. This hypothesis enabled him to extend his speculations into something like a theory, founded upon the supposed existence of a nebulosity of matter extending beyond the orbit of the most distant planet, which by the loss of heat through radiation, contracted its dimensions, and was thrown into a rotary motion by the force of the outward particles rushing to the centre. This gave birth to centrifugal force, which depends upon rotary motion for its existence. This centrifugal force continued to increase, until it threw off the external particles into a separate zone or ring; as, the rings around Saturn. These were broken up by some imaginary influence, and the particles again drawn together by the attractive power of a central point, which becomes the nucleus of the new-born planet, whose motion results

from the same influences which started its primary. This planet, in its turn, throws off other rings, which by a similar process are transformed into revolving bodies, in the character of satellites.

This is a brief statement of the cosmogony adopted by La Place, or more properly, his speculations, in which the nebular hypothesis performed so important a part. Our author has adopted the same hypothesis; making it the foundation of his extravagant speculations concerning the creation of animate and inanimate matter; differing from those of La Place more in the boldness with which they are stated, than in fact.

The "Vestiges"* assumes the fact of the existence of nebula; and that originally it filled the space that its detached parts now occupy. "This leads us," the author says, "at once to the conclusion, that the *whole of our firmament was at one time a diffused mass of nebulous matter*, extending through the space it still occupies. So also, of course, must have been the other astral systems. Indeed we must presume the whole to have been originally in one connected mass, the astral systems being only the first division into parts and solar systems the second." Then, allowing himself the benefit of a supposition, as to the peculiarity in its constitution enabling it to form its own nucleus, he discovers the influence producing the aggregation of the molecules, in the attracting power of the nucleus, and accounts for its rotary motion, by that "well-known law in physics; that when fluid matter collects toward or meets in a centre, it establishes a rotary motion:" as, in the whirlpool and whirlwind. Rotary motion once established, centrifugal force naturally results, from "the tendency to fling off its outer portions." And this, when in full operation, throws off the external molecules in the form of a ring around the primary—this ring is broken by some imaginary influence; and the particles gathering round a nucleus in the form of a spheroid, constitute the most distant and first-born of our solar system.

The existence of the material (nebula), and of the laws destined to mould it into worlds, being established, the foundation of the hypothesis is fairly laid. Our attention is now turned to the appearances of the planets and satellites—their distances, densities and motions—as evidences confirming the theory of their creation. The great nebulous mass has commenced its motion, and is fully under the various influences which are to change its character, and divide it into a family of inhabitable worlds. But this division is to be effected by influences which must necessarily act uniformly and regularly. This supposed mass, by some "peculiarity in its constitution," forms a nucleus, and its molecules, solidifying and contracting under the influence of radiation, produce rotary motion. "At length when the central mass reaches a *certain* point or stage (determined by some unknown law) in its advance toward solidification, a separation takes place (by virtue of the centrifugal force), and the crust becomes a detached ring."

The first planet thrown off must necessarily be the largest and least compact, as well as the most remote member of the system. As the mass continues to contract and solidify, the second planet must

* The Vestiges of Creation with a Sequel—last edition.

be smaller and its constituent parts closer than the senior member, in proportion to the distance; and, as they are thrown off by the same laws, their motions should correspond. These positions are taken in the "Vestiges." "It is not less remarkable," our author says, "that the motion of the sun on its axis, those of the planets around the sun, and of the satellites around their primaries, and the motions of all on their axes, are in one direction—namely, from west to east." * * * "Some of the other relations of the bodies are not less remarkable. The primary planets show a progressive increase of bulk and diminution of density from the one nearest to the sun to the one which is most distant." * * * Their relative distances from the sun also show a surprising proof of their unity.

From the relation and unity of the planets, and the appearances of existing phenomena, the primordial condition of matter is inferred. We may therefore inquire, whether the relation and unity spoken of furnish the "Vestiges" the support to its theory, which the author forces from them. The nearest planet is 36,000,000 miles from the sun, and the second 70,000,000 miles, or nearly twice the distance of its youngest sister; while the earth, the next in order, is but 95,000,000 miles—being less than one-third increase on the orbit of Venus; and Mars, the fourth, is 150,000,000 miles, or a little more than one-third increase on the orbit of the earth. Uranus is 1,800,000,000 miles from the sun, or nearly twice the distance of Saturn; and Le Verrier's planet twice the distance of Uranus. The space, without any large planet, between Mars and Jupiter, has been accounted for by the discovery of our small planets, revolving between them at nearly one mean distance from the sun. We discover, then, that the ratio of increase is not regular; nor can the irregularity be accounted for by the contraction and solidification of the central mass, as the ratio of increase is not in proportion to the squares of their distances. The distance from Mercury to Venus is greater than from Venus to the earth. Nor can the difference between the major and the minor planets be accounted for in this way.

The same author is still more unfortunate in attempting to find a progressive increase of bulk from the nearest to the most distant planet. Mercury, the nearest planet, is about 3,200 miles in diameter, and Uranus, the planet thought to be most distant when the "Vestiges" was published, is about 35,000 miles in diameter. There is not, however, a progressive increase of bulk from Mercury to Uranus. Jupiter, the fifth from the sun, is the largest, having a diameter of 88,000 miles. Saturn is also much larger than Uranus, being 80,000 miles in diameter; while the diameters of Venus and the earth are nearly equal, being twice as great as that of Mars, whose distance from the sun is more than one-third greater than that of the earth, and more than twice the distance of Venus. The measure of density adopted by our author, which differs but little from the density of some of the planets, as ascertained by exact calculation, would reduce Uranus down to an inconceivably attenuated mist, and Le Verrier's planet to "the shadow of a shade." But the density is not regular in its increase. Passing over the differences in the inclination of their axes to the plane of their orbits (which perhaps ought to have been equal, owing to the uniformity of the controlling influences

acting upon them), we will present the only exception to the uniformity of their movements from west to east, found in the motion of the satellites of Uranus, which move in a retrograde course—from east to west: contradicting the idea of regularity in this particular. This retrograde motion of the satellites of Uranus, our author attempts to explain by hinting at the possible "*bouleversement*" of the whole of that planet's system, which in our opinion weakens his whole argument, as it admits an exception to the operation of laws, the regularity and universality of which he is struggling to sustain.

However firmly established that "well-known law of physics," which produces rotary motion, may be, it is somewhat doubtful whether our author is entitled to claim its influence in this theory. Admitting that the contraction of the nebulous mass, by radiation of heat and the attractive power of the nucleus, might produce a rushing in of the outward particles, sufficient to give rotary motion to the body, if the force of the particles fell upon its centre so obliquely as not to neutralize the power of each other; yet we doubt the possibility of the existence of the condition upon which this motion depends. The motion of the planets is explained by the whirlpools or dimples found by "the musing poet" in fantastic eddies, where the current is forced out of its direction by some opposing power, which turns it back in a semi-circular course, bringing it in contact with the current above, and this, carrying it down again to the point of resistance, gives it a circular motion. We see this illustrated in the bends or curves of rivers, when the current rushes against the bank, and at the meeting of streams flowing together from oblique directions. But these phenomena are not fair illustrations of the motion of nebulous bodies. The first nebula must have been a globe, the dimensions of which, according to the theory, were contracted by radiation, and under the influence of this contraction, the atoms were drawn to the centre. Now, as the radiation acted equally upon all the agglomerating particles in the same circle, the momentum of each must have been the same; their forces, then, were neutralized by each other; therefore, their flowing together produced no cause for rotary motion. Whirlpools are caused by currents running to *different* points—the agglomerating particles are all drawn to a *single* nucleus. The different currents are unequal in force and velocity—the motion of the atoms is produced by the same influences, and their forces are necessarily equal. But suppose the external particles were thrown off by centrifugal force (resulting from rotary motion), in the form of a ring around the primary, and afterward broken up; we would ask our author to explain the process by which they are attracted to the particular nucleus. These fragments are scattered in an orbit too inconceivably vast for human computation, and around a globe (the primary) millions of times larger than the nucleus which is to attract the widely-scattered particles together. "It is a well-known law in physics," that there is a mutual attraction between all bodies in the proportion of their mass. "It is this that causes all the disturbances which render the celestial motions so complicated and their investigation so difficult." Now, by what means the attractive power of the great central mass was overcome by that of the mere point, is left wholly unexplained. We

can imagine the planets taking oblate forms under the reciprocal attraction of their component parts and centrifugal force—for this process is natural, and does not conflict with well-established laws—but we cannot imagine the influences which neutralize the attraction of the mass, and enable the insignificant point to control particles located on the opposite side of the primary.

But is it possible that the supposed nebula did occupy or fill the whole orbit of the most distant planet? The diameter of the sun is 888,000 miles—that of Jupiter, the largest planet, is only 88,000. It is ascertained, that if all the planets and satellites in the solar system were moulded into a single globe, that globe would still not exceed the five-hundredth part of the globe of the sun; in other words, the bulk of the sun is five hundred times greater than the aggregate bulk of all the rest of the bodies of the solar system. If the planets and satellites were brought to the density of the sun, by moulding them together, they would still bear no greater proportion to that body, as the density of the minor would be lost in equalizing that of the major planets. According to this calculation, we have a globe whose diameter is 888,000 miles, and other bodies, the aggregate bulk of which is but one five-hundredth part as large, of the density of water, to fill an orbit, the diameter of which is not much less than 8,000,000,000 miles. With these facts in view, “it has been asserted, that the matter of the solar system could not, in any conceivable gaseous form, fill the space comprehended by the orbit of Uranus. The orbit of Le Verrier was then unknown; its discovery increases the difficulty. “If this be the case,” our author observes, “let it be allowed as a difficulty”—silently admitting the objection to be well founded, notwithstanding the importance of sustaining his position, in order to account for the location of the planets.

The history of astronomy, ever interesting, has been made more inviting by the successive speculations concerning the nebular hypothesis. For years the far-reaching vision of astronomers has been turned upon these appearances, and for an equal length of time the learned corps has been defeated and mortified by the uncertainty in which they were compelled to remain; while theories and speculations, as wild as the nebulae are distant and indistinct, have resulted from their supposed irresolvability, which have alternately disturbed the foundations of the Christian religion, and the science of astronomy itself—that glorious star-crowned superstructure, whose arches span the widest range of stellar matter. These irresolvable islands were found in the very borders of that vast field which the astonishing improvements of man have enabled him to bring within the compass of his vision, and were therefore the more difficult to examine. But as successive improvements were constantly enlarging the field of view, and rendering more distinct the remote territory already partially surveyed, it was hoped that these phenomena would soon be understood. That period has now arrived. Out of the dark cloud that settled on the bosom of philosophy, light and truth have been distilled, and science comes out more closely allied to the religion which sustains her faithful priesthood.

“The two Herschels,” says the Vestiges, “have in succession

made some other most remarkable observations on the regions of space. They have found within the limits of our astral system, and generally in its outer fields, a great number of objects which, from their foggy appearance, are called nebulae; some of vast and irregular figure, as that in the Sword of Orion, which is visible to the naked eye; others of shape more defined; others again, in which small, bright nuclei appear, formed here and there over the surface. Between this last form and another class of objects, which appear as clusters of nuclei with nebulous matter around each nucleus, there is but a step in what appears a chain of related things. Then, again, our astral space shows what are called nebulous stars; namely, luminous, spherical objects, bright in the centre, and dull toward the extremities. These appear to be only an advanced condition of the class of objects above described. Finally, nebulous stars exist in every stage of concentration, down to that state in which we see only a common star with a slight *bar* around it. It may be presumed that all these are but stages in the process, just as if, seeing a child, a boy, a youth, a middle-aged, and an old man together, we might presume that the whole were only variations of one being. Are we to suppose that we have got a glimpse of the process through which a sun goes between its original condition, as a mass of diffused nebulous matter, and its full-formed state as a compact body? And in reply, in the sequel to the "Vestiges," to the remarks of a learned reviewer, tending to show that the nebulous bodies had yielded successively to the resolving powers of enlarged telescopes, he says: "The nebulae are always understood to be of two kinds; nebulae which are only distant clusters of stars, and which yielded, one after another, to the resolving powers of telescopes as these powers were increased; 2d. nebulae comparatively near, which no increase of telescopic power affected. The resolution of a great quantity of the first kind of nebulae by Lord Rosse's telescope was, of course, expected; and it is a fact, though in itself interesting, of no consequence to the nebular hypothesis. It will be only in the event of the second class also being resolved, and its being thus shown that there is only one class of nebulae, that the hypothesis will suffer." To support this opinion, an extract from the works of Dr. Nichol is produced, a part of which is in the following language: "Astronomers have never rested their belief in the reality and wide diffusion of the nebulous matter on the objects referred to in the first paragraph, but on others much within the range of our previous vision. In so far as we have hitherto understood the nature of clusters, the telescopic power required to resolve them is never very much higher than that which first describes them as dim, milky spots. But there are many most remarkable objects which, in this essential feature, are wholly contrasted with clusters. For instance, the nebula in Orion, as I have fully shown in the text, is visible to the naked eye, as also the gorgeous one in Andromeda; while the largest instrument heretofore turned to them has given no intimation that their light is stellar, but rather the contrary, although small stars are found buried amid their mass. Now, if Lord Rosse's telescope resolves these, and others with similar attributes, such as some of the streaks among the following plates, we shall thereby be informed that we have generalized too hastily from the character of known

firmaments; that schemes of stellar being exist infinitely more strange and varied than we had ventured to suppose, and certainly we shall then hesitate in averring farther concerning the existence, or, at least, the diffusion of the purely nebulous modification of matter. Lord Rosse's telescope may also, as I have said, disprove the reality of our arrangement of the forms of nebulae as steps of a progression." The same distinguished professor, in describing the appearance of one of the nebulae, says: "On examining the middle star in the Sword of Orion, it seems affected by an indistinctness not common to small stars, and the application of the smallest telescopes at once yields the explanation, the object appearing, not as a star, but a diffused haze; examined with instruments of a profounder space-penetrating power, its character as a haze continues unchanged, though it speedily gives warning of some strange and fantastic object."

When Sir John Herschel's eighteen inch mirror was directed to the nebula in the Sword of Orion, fantastic branching arms were discovered, with such an extraordinary appearance as to induce Sir John to believe it something very different from a stellar constellation. In the winter of 1845, Dr. Nichol examined this nebula through Lord Rosse's far-reaching telescope, after which he says: "Owing to the incompleteness of the instrument and unfavorable weather, it was the first time that grand telescope had been directed toward that mysterious object. Not yet the trace of a star—looming, unintelligible as ever, there the nebula lay." The long-cherished hopes of the learned professor were all blasted. He who had measured the heavens, and furnished the geography of its wide domain, with the size, locations, and motions of its sisterhood, was compelled to turn once more from the contemplation of this wonderful phenomenon with feelings of profound reverence and awe than the contemplation of kindred phenomena for years had been able to inspire. Not discouraged, however, by the failure of the first effort, the distinguished owner of the "Parsonstown Leviathan" continued his examinations until March, 1846, when a favorable opportunity enabled him to resolve the obstinate and astonishing phenomenon into a galaxy of stars; which fact he communicated to Professor Nichol in the same month. No longer a self-luminous vapor, or planet in its infancy, but "a bright firmament of stellar orbs, so far removed from us in space, that the brilliancy of its constituent stars are merged into a uniform, faint light." The difficulty is solved, and all the strange appearances accounted for as the effects of varying distances. The stars of heaven are perfect; no rudimental or half-grown ones are found; the choir is full. The nebular hypothesis vanishes as a pleasant dream, and with it the beautiful speculation of La Place, and the still bolder ones of our author. "The sun may have passed," observes Dr. Nichol, in a later work, written in explanation of his former, "into his present form out of a gaseous one, *but there is no phenomenal proof of this*—no visible analogical appearance in the heavens. In addition, therefore, to the duty of explaining the peculiarities of our solar system, La Place's speculation has now, along with other indirect arguments, to sustain the weight of its own hypothesis."

But it is said by our author that his theory does not depend on the nebular hypothesis for support; and if it were wholly exploded it

would not affect the force of the evidences introduced to prove a progressive advance from the lower to the higher forms of matter, under a "fixed order or law." We may admit this to be true, since it appears that the nebular hypothesis is the offspring of the imagination of certain learned philosophers; not, however, without phenomena to warrant their far-reaching speculations, but without an established fact to support them. We, therefore, without presenting any farther objections to this part of the "Vestiges," leave it in the light of Lord Rosse's unrivaled glass, where it appears without the least probability of truth.

Passing over many minor matters which, we think, do not affect the character of the theory, we turn at once to the deeply interesting history of past generations, as discovered by the eye of science in their fossil remains. We will not attempt to follow the "Vestiges" regularly through all the different strata of the earth, and genera of animals referred to; it will suffice to state the conclusion to which the author arrives, and show that the facts do not sustain him. We have seen that he advocates the nebular hypothesis, and that the world resulted from the operation of certain laws upon the nebula. He also contends that there is a regular advance from the simple lichen and animalcule to the highest order of dicotyledonous trees and mammals; and that this regular advance or improvement of vegetable and animal life, depends upon and is the result of certain immutable laws, the controlling influence of which admits of no deviation. The lichen and moss, the humblest forms of vegetable matter, improved upon themselves until they produced the forest monarch. The lightning's flash, and some wandering electric spark wakes an animalcule into life, to commence that system of organic improvement which continues until instinct ripens into intellect, and creatures of a moment are clothed with immortality. The worm, the reptile, fish, bird, quadruped, each in regular succession, are each the offspring of the preceding. Man, the noblest of all sublunary beings, endowed with an intellect capable of the widest range of knowledge, whose touch the elements of heaven obey—for whom all things were created—to supply whose wants a teeming world empties its rich profusion at his feet—to soften and ennoble whose character the music of a thousand spheres exhausts its melody—for whom the rocks were rent, the sun was darkened, and the last convulsive throes of expiring innocence were suffered—is the grand total of all the improvements. All this, too, the result of laws, independent of any action of Deity. Under their influence the thunder rolls, the lightning kindles the heavens with fire, the sea ebbs and flows, volcanoes bury cities, and the vagrant wanderers of space survey its illimitable fields; pestilence depopulates and earthquakes destroy; there is no God to direct, to limit or to stay, to pity or to save. He who

"——spangled o'er infinity with suns,
And wrapp'd it round about him as a robe,
——and wrote out his own great name
In spheres of fire, that heaven might always tell
To every creature, God,"

is silent before the majestic workings of his own creation—stern and unchangeable—unmoved by pity or by love.

To sustain this strange theory, directly opposed as it is to the Mosaic cosmogony, and to the best interests and dearest prospects of man, something more than loose conjectures and mere suppositions must be introduced. Facts, and facts alone, are sufficient to disturb a faith inspired by reason and revelation, and sanctioned by the experience of past time. The speculations of the "Vestiges" depend upon an unbroken chain of phenomena, and unless it is established the theory must fall. If we can show vegetables and animals of a higher order prior, or, according to the "Vestiges," below those of an inferior character, the want of connection in the chain of evidence will appear, and the probability of the truth of the theory be proportionally weakened. "In pursuing," our author observes, "the progress of the development of both plants and animals upon the globe, we have seen an advance in both cases, along the line leading to the higher forms of organization. Among plants we have first sea-weed, afterward land plants, and among these the simpler (cellular and cryptogamic) before the more complex. In the department of zoology we see zoophytes, radiata, mollusca and articulata, existing for ages before there were any higher forms. The first step forward gives fishes, the humblest class of the vertebrata; and, moreover, the earliest fishes partake of the character of the next lowest sub-kingdom—the articulata. Afterward come land animals, of which the first are reptiles, universally allowed to be the type next in advance from fishes, and to be connected with these by the links of an insensible gradation. From reptiles we advance to birds, and thence to mammalia, which are commenced by marsupialia, acknowledgedly low forms in their class." This is the conclusion to which our author arrives, after viewing the fossils of the different strata in the earth's crust. But he is not sustained by the experience of distinguished men who have devoted their lives to the study of geology. Zoophytes, polyparia, crenoida, and other animals of a kindred character, were the only ones our author could find in the "Grawacke" system, and these, he says, "are found in the earliest of earth's sepulchres." But it appears, from the authority of Sir H. de la Beche, that bones and teeth of fish have been found in that system, proving that a comparatively high order of animals were among the earliest inhabitants of the world. And the testimony of this distinguished geologist is confirmed by his still more distinguished successor, Mr. Lyell, who says, "vertebrated animals, true fishes, are found among the earliest types of organism."

In the next, or "Silurian system," the same species are continued, to which, according to the "Vestiges," fishes of a very minute size are added, but of an order of mean organization. The records of geology contradict this statement, by establishing the existence of fish of the highest organization; the evidence of which may be found even below the strata in which our author places the first and meanest order of vertebrated animals, and out of the genera of an "obscure character," which are overlooked by the "Vestiges" to favor the theory of development. Professor Agazzis has found several new species, two of them of the very highest type. In the next era of the world's history, the "Vestiges" contradicts the learned Agazzis, whose grand divisions, with perhaps the single exception of the

cycloids, are scattered through the whole Devonian system, and those of the most advanced types are found preceding and following the inferior. In speaking of other fossils of this system, Prof. Agazzis says: "This primitive diversity of the Ichthyoid types, in a formation so ancient as the old sandstone, is in my opinion one of the facts the most contradictory to the theory of the successive transformation of species, and of the descent of organized beings now living from a small number of primitive forms." True fish of an advanced type, even the highest order, have been found in this system in Russia, by one of the most distinguished geologists living, Mr. Murchison, whose testimony is full and unequivocal against the development theory.

The "Vestiges" is not more fortunate in its statement of the carboniferous era. "Neither the hum of insects nor the music of birds cheered its solitude," says the author; yet we find Mr. Lyell and Dr. King testifying to the appearance of "footmarks of reptiles and birds, or other highly organized animals," low down in that system, both in Nova Scotia and Pennsylvania. Insects have also been found in its strata, of the most perfect yet delicate structures, proving that this era was not so destitute and solitary as supposed. Dicotyledonous and acotyledonous trees furnished it shade, flowers sweetened its atmosphere with fragrance, and birds of an advanced type kept its forests vocal with music. In the next page of the world's history, our author is "startled" by the appearance of reptiles of the Saurian (lizard) character, "animals whose imperfect respiratory system perhaps fitted them for enduring an atmosphere not yet quite suitable for birds or mammals; and of footmarks of a tortoise at Corneackle Muir, and those of birds of the order of grallæ in Connecticut;" but this last fact seems doubtful, as it is yet without the approbation of geologists. All this agrees with the development theory, and our author is therefore startled at the unbroken chain of evidence which he finds in each successive page of the rock book. Professors Owen, de la Beche and Cuvier were not so much startled when they found "monster animals" of the Saurian tribe following in the era next after the transition or grawacke, long anterior in the fossil history to the low order of Saurians which our author found in the new red sandstone. It will be recollected that the footmarks of reptiles and birds were found in the preceding system in at least two distinct localities, to the truth of which at least four eminent geologists bear witness. His statement of the appearance of the batrachia is contradicted most positively by Prof. Owen, who says they make their appearance under their highest instead of their lowest forms or simplest condition of structure. Here we have most positive evidence against a regular advance. In the oolitic formation but little is found which is considered important to the theory; but it is "remarkable that the fossils of this system are *entirely different* from those of the preceding age, and they in their turn disappear before the next era." Are we to understand that the first were buried in their native strata before their successors appeared? If so, we ask in what way the second and higher were procreated by the first and lower order? The line of demarcation between the strata is perfectly drawn, and the fossils of each, according to the author, are equally

distinct. The first, then, must have passed away before the second appeared. How the family connection was maintained, we leave for the author to explain. The errors of the work are continued in the history of the cretaceous system, in placing the cycloids and ctenoids above plocoids; but, admitting the order in which they are placed to be correct, yet the theory of development is contradicted by Murchison, who found ctenoids as low down as the old red sandstone. But notwithstanding the errors introduced in evidence, as facts, the author finds it necessary to resort to suppositions to make out the regular development or advance, and in doing this he takes for granted the very point he is trying to establish—that there is, throughout, a regular progress from the humble to the superior types. He considers this established, and then *infers* that the *particular* animals *did* exist in the places assigned them by his theory, though they may not be found. "Hence," he says, "we derive a light as to what animals *may have* existed at particular times, which is in some measure independent of the speculations of fossil geology. The birds are below the mammalia in the animal scale, and therefore they may *be supposed* to have existed about the time of the new red sandstone, and oolitic systems, although we find but slight traces of them in those formations, and it may be said, till a considerably later period." This is assuming the question in dispute, and from it *inferring* the existence of the evidence necessary to support it.

Little or no benefit will result from following the author regularly through his catalogue of suppositions, inferences and errors. Thus far, it must appear to the satisfaction of every impartial mind, that the history of geology does not sustain the idea of a regular advance from the lowest or simplest to the highest forms of organization; but, on the contrary, proves directly the reverse to be true. Among the earliest inhabitants of the world animals of a high organism, differing in almost every particular from the structure of their more humble associates, are found, and not unfrequently the highest or most perfect of a type appear first in the singular record of their history; wholly contradicting even the possibility of the truth of the development theory. It is said by Prof. Owen, and other distinguished authorities, that the general structure of the advanced order of fishes, upon which the theory engrafts the simplest forms of reptiles, utterly forbids the idea of the least possible connection between them and that tribe. The theory receives as little support from the order in which the vegetable kingdom is found, as from that of animal life. Trees of the largest description have been found in the strata, which our author assigns to the first appearance of lichens, the humblest order of plants; and below the strata in which he places the first lichens and mosses, the traces of dicotyledons are distinctly seen, as found in the grawacke slates at Cork, by Dr. Fleming. And these dicotyledons are found below the cryptogamic and monocotyledons, or lowest class of plants of vascular tissue. It is admitted, however, by the "Vestiges," that a few dicotyledons existed during the carboniferous era, in which era he dates the commencement of land plants; but, the author adds, "they are comparatively few." The truth of his theory is as much affected by the

appearance of a few as by many; it is not the quantity that determines this question, but the order in which they make their appearance. It will be recollected, however, that "these few" of the highest order are found below those of a simpler character, and therefore could not have resulted from them. The coal formation is represented as containing nothing but ferns and simple plants; but this is not true. According to the best authority, it contains trees of the largest and noblest character in great abundance.

Thus far we have wandered with the "Vestiges" through earth's earliest sepulchres, without finding any evidence, in fact, to support the theory of development. But if the history of fossils clearly established a regular advance in the ascending strata of the earth, from the humblest to the more complex forms, yet may we not doubt whether the advanced conditions of life sprung from the inferior species? Prof. Owen thinks the different species, in their progressive development, would maintain their typical character, and that if they did improve, no change of character would take place. Prof. Agazzis, after being specifically engaged for many years in the observation of fossils, says, "that he cannot admit the transformation of species from one formation to another." Muller, the celebrated German physiologist, says, that the species were created, originally, distinct, and that "there is not a remote possibility that one species has been produced from another." Baron Cuvier bears the same testimony, and denounces the theory as "chimerical," and asserts that it is "renounced by philosophy." The opinions of such men, expressed after they had formed an intimate acquaintance with the history of the past, as written in the hieroglyphics of buried generations, are quite sufficient to decide the question, particularly when there is no evidence worthy of the least degree of confidence produced to establish the contrary. To the weight of their evidence we may add that of Murchison, Vernuel and D'Orbigny, who are equally positive, and worthy of no less respect. And to these, again, may be added the name of Charles Bell, whose long experience and thorough acquaintance with the physiological character of animate matter will entitle his opinions to profound respect. In comparing the different formations with each other, it has been ascertained, that the higher species or more advanced genera of animals possess organs wholly different from any in the lower classes; and others which cannot be found in the humble species, and these of such a distinct character as to forbid the idea that they could have issued from the lower order.

It is only necessary to examine the distinct modes in which the air is permitted to act on the blood of the different genera of animals, to satisfy the mind that each species is the result of a distinct exertion of creative power; and that their organs have been adapted to the functions they perform by superior wisdom. The primary office of breathing in the economy of life is oxygenation of the blood; but in man it is also the instrument of voice and expression, two properties which have relation to his intellectual nature. The apparatus required for adapting the respiratory organs to these superadded endowments, is altogether different from that which is found in the lower animals, where the organ is subservient only to the purification of the

blood. The arrangement of the nerves is very different in the various types; and in the human frame a distinct class is appropriated to the organ of respiration, called the "respiratory nerves." The reason of the difference in the mechanism of the organ of respiration as it exists in the lower animals and the highest order of life, is obvious; in the one, it performs but one function, in the other, three. In man it is the instrument of articulate language and expression. There is not only a difference in the arrangement of the respiratory organ but there is an addition in the higher order; a new and distinct class of nerves is required to perform the functions and regulate the action of the superadded mechanism. In the lowest order of animals there is neither circulating system nor distinct respiratory organ. The first indications of this economy is found in the prolongation of the integument of the animal, in the shape of tufts or fringes, which float in the water and expose the blood to the oxygen contained in that element. In a higher order (as insects) there is a succession of holes ranged along their sides; these are the openings of a series of small tubes that extend through their interior, through which the air is admitted, and in this mode purifies their blood. The next higher order of the respiratory organ is very different from any of the former, being bronchiæ or gills, and of this there are many gradations. In the lower order of animals the mouth is used only for nutrition; this is the case with all the invertebrata; but in the vertebrata it is used for breathing as well as for nutrition. No indications of a true chest and wind-pipe appear until we ascend to the class of vertebrata. The chest or cavity, and wind-pipe, or tube communicating with it, are indispensably necessary to a high intellectual order of life. The cavity or chest must be capable of contracting the volume of air within, so as to expel it along the tube or wind-pipe with a stream strong enough to vibrate and produce sound.

Again, there is an important distinction between the structure of the chest in reptiles and birds, and in mammalia. In reptiles and birds no partition exists between the abdominal and thoracic cavities; or, in other words, we find no *diaphragm* below the mammalia. This new member circumscribes the space containing the lungs and gives them greater force, assisting them in their efforts to expel the air through the larynx, and contributes much to the impulse which produces vocal sounds and articulate language. Where the chest and wind-pipe acquire the compact form and new properties of the mammalia, new and peculiar sensibilities and formations are introduced, which are not found in the invertebrata, and are entirely disconnected with any organization or arrangement corresponding or similar to their own. The superior respiratory mechanism of man is to afford him an instrument corresponding with his superior endowments, to supply him with an organ adapted to the great purposes of communicating thought and evolving the powers of his mind, the attribute by which he holds his exalted position in creation.

For these facts we are indebted to Charles Bell's last treatise on the nerves, published since his death, and bound with his work on the "Anatomy of Physiology." There are other and important peculiarities of structure, with which all are familiar, and therefore need not be mentioned.

From these facts we can draw but one conclusion—that the organic structures of all the distinct species are as essentially different as the important parts they are to perform in the economy of life ; that they did not spring from each other, but that they are creatures of original design ; created by separate and distinct exertions, and adapted to the condition in which they are placed ; thought into existence by an omnipotent power—

“ Who spake, and it was done ; eternal night,
At God's command, awakened into light ;
He called the elements, earth, ocean, air—
He called them when they were not, and they were.
He looked through space, and, kindling o'er the sky,
Sun, moon, and stars, came forth to meet his eye
His Spirit moved upon the desert earth,
And sudden life through all things warm'd into birth.
Man from the dust he raised to rule the whole,
He breathed, and man became a living soul :
Thus were the heavens and all the hosts display'd,
In wisdom thus were earth's foundations laid.”

To confirm this, the smallest insect beneath our feet—the creature of a moment—and the systems of planets and stars, scattered through infinity, in a single revolution of which, unnumbered years are exhausted, unite their testimony. Each is a mystery beyond the comprehension of man, and both silently point him upward for the revelation he seeks.

It is a singular fact that the silk-worm cannot accomplish the object of its creation without the mulberry leaf, the substance upon which it feeds ; “and Providence, as if to ensure the continuation of this useful species, has so ordained it that no other insect will partake of the same food ; thus ensuring a certain supply for the little spinster.” This appears to be a small matter, but we know not how much importance to attach to it ; and it as clearly exhibits design and goodness in the creative power, as the law that holds together the bodies of our astral and stellar systems. The smallest feather on the woodland chorister, in its adaptation to the wants of the bird, displays traces of the same designing goodness. It will be seen, upon examination, that the filaments on the stem of the feather next to the body, and the fibres on the part which is exposed, are of precisely the same character ; but, in order to keep the body warm, the filaments nearest it are divided, so as to constitute down ; while the filaments on the point of the feather, or outer part of it, are so linked together by fine hooks that they constitute a covering to the downy part, which is thus protected from the inclemency of the weather.

In illustration of the “idea of final cause” or original design, Dr. Whewell introduces the discoveries recently made with regard to the process of suckling the kangaroo. “In the case of this, as of other pouched animals, the young animal is removed, while very small and imperfectly formed, from the womb to the pouch in which the teats are, and is there placed with its lips against one of the nipples. But the young animal, taken altogether, is not so large as the nipple, and is therefore incapable of sucking after the manner of common mammals. Here is a difficulty ; how is it overcome ? By an appropriate *contrivance* ; the nipple, which in common mammals is not furnished with any muscle, is, in the kangaroo, provided with a powerful ex-

trusory muscle by which the mother can inject the milk into the mouth of her offspring. And again, in order to give attachment to this muscle, there is a bone which is not found in animals of other kinds. But this mode of solving the problem of suckling so small a creature, introduces another difficulty. If the milk is injected into the mouth of the young one without any action of its own muscles, what is to prevent the fluid entering the wind-pipe, and producing suffocation? How is this danger avoided? By another appropriate *contrivance*; there is a funnel in the back of the throat by which the air-passage is completely separated from the passage for nutriment, and the injected milk passes in a divided stream on each side of the larynx to the œsophagus. And, as if to show that this apparatus is really formed with a view to the wants of the young one, the structure alters in the course of the animal's growth; and the funnel, no longer needed, is modified and disappears."

Evidence of final cause not less convincing, is found in the anatomy of the horse. In the case of the kangaroo the *appropriate contrivance* is necessary to the young animal's life; in the horse, it only furnishes a means of defense from flies. Dr. Warren observed in a lecture recently delivered before an agricultural society in Boston, "that the first and largest muscle which presents itself in taking off the skin of the horse is, however, one which does not exist in the human body. It commences about the middle of the back and extends over the ribs to the belly. This is the muscle of the skin, and its office is to move the skin in detached parts, in order to free it from any annoyance, such as a fly, &c. There is nothing of the kind in the leg or thigh, as they are protected by the tail." Whether the fact of this important *contrivance* adds anything to the evidence of final cause furnished by the kangaroo, is for the reader to determine. The smallest flower of the field is equally interesting, as an evidence of design and goodness. The leaf and flower are of the same material; yet one is green, the color most refreshing to the eye; and the other variegated with almost every color—as gratifying as the other is refreshing to that organ. But another difference equally difficult to account for, exists—one has no fragrance, the other has, and when bruised, it reminds us of the spirit of forgiveness, of which it has been chosen the beautiful emblem.

Thus it appears that final cause has been written on the plant of a season—the worm, whose largest cycle of existence lasts but a few days, and in animals extending down even to the means of defense from a fly. By turning our eyes from these simple witnesses to the globe we inhabit, we find testimony tending to prove the same fact, written in larger characters. The world with its motion around the sun, producing a grateful succession of seasons just suited to our organization—its daily revolution furnishing light and darkness, "giving an alternation of labor and rest, nicely corresponding with our muscular power, with its attraction upon the matter of our own bodies, just sufficiently great to give them the requisite stability, and not so great as to deprive them of the power of free and rapid motion"—its atmosphere, "an appendage which does not arise from any known physical law;" but is indispensably necessary to the animal and vegetable kingdoms; "being the medium through which

sound is transmitted," and the material out of which the chemical operations of the lungs distil the element that purifies the blood, and imparts to it its life-sustaining power. "Without the atmosphere, even supposing we could live in its absence, however perfect might be our organs of speech and hearing, we should possess them in vain. Voice we might have, but no word could we utter; listeners we might be, but no sound could we hear." It is no less important "in diffusing in an agreeable manner the solar light, and mitigating its intensity. In its absence the light of the sun would only illuminate objects on which its direct rays would fall; all other places would be dark even at mid-day; we should have no other degrees of light, but the glare of intense sunshine, or the most impenetrable night. It retains and diffuses warmth, whether proceeding from the sun above, or from sources of internal heat within the globe itself," and by this means prepares the globe for animal and vegetable life. "It preserves the seas liquid, and by supplying propitious winds to stimulate the intercourse of nations, knits together races of beings who occupy the most distant points by the kindly bonds of reciprocal beneficence." Without an atmosphere nothing could exist—man's highest privileges are connected with, and appear dependent upon it; yet "it is not essential to any of the great mechanical functions of the earth in the economy of the solar system." Without this atmosphere, the globe would perform her regular revolutions, maintain her axis, and discharge all its various offices to the system of which it is a member; yet it would be an arid waste. Volcanoes it might have; but no cities for destruction—mountains and valleys might diversify its surface; but they would be unenlivened by the murmur of streams, or the music of animate matter. Seeing, then, that the atmosphere does not arise from any known physical law, and is not essential to any of the mechanical functions of the earth in the economy of the solar system; but is indispensable to the existence of vegetable and animal life, as well as the higher faculties of man; are we not driven to the conclusion, that it was cast around the earth by Him "who careth for us," expressly for the well-being of its occupants?

From the worm of the dust and flower of the field, and bird of the forest, to our own globe, and the innumerable worlds that shine above our heads, reflecting the image of each other in the grand, still mirror of infinity, traces of the same all-pervading, eternal wisdom are seen in the beauty of arrangement and adaptation to each other. Man himself, more mysterious than all else—grandeur than the world with all its spirit-stirring scenery—more glorious than the star-bespangled firmament—higher, highest of all created matter—whose eternal part enables him to grasp the whole, and will live in the freshness of its youth when all else shall have passed away—is but a farther exhibition of the same almighty, all-designing power.

We have thus noticed the prominent parts of the work; and would gladly devote a few pages to the less important divisions, if the space allowed us would permit. We will not, however, pass that part in which the author refers to resemblances of the brain of the human fœtus to the different species in silence. To support this absurdity,

he introduces the evidence of others, whom he considers worthy of confidence. We rebut this by the evidence of distinguished physiologists, who have examined the fœtus in at least five different stages of its existence; and deny most positively that any such resemblance exists. If it does exist in the brain, why not in the body generally? It is well known that the fœtus from the first appearance of a distinct form is perfectly natural. But this part of the work is disgusting in the extreme, and excites anything but respect for the author. We therefore leave it.

The author of the "Vestiges" closes his work after convincing his own mind that "life is everywhere one," and that "the inferior animals are only less advanced types of that form of being perfected in ourselves;" with assurances of his belief in the existence of an all-wise Deity, with power to make and uphold. But he insists that that all-wise Deity has no immediate and direct action in creating and upholding at this period of time. Laws once created by the great I Am, now build up and destroy—rule and regulate the whole. Man need not hope for any exemptions from the established law; he need not struggle to improve himself or his species; through a certain stage of existence he must pass, and in such a manner, without any sympathy from a merciful Creator, to whom he has been directed to offer his morning and evening orisons. No overruling Providence notes his grovelings in the dust, or smiles with approbation on his nobler aspirations. The story of the pillar of fire by night, and cloud by day, is all a fable; and the history of Calvary, the offspring of the imagination. It is true, the author does not use language like this, but such sentiments may be found indirectly expressed in almost every page of his work. He, however, encourages us with the hope that a faith may be drawn from his theory, sufficient to sustain us in all the difficulties of life. This faith is to be drawn from a theory which denies all the attributes of the Superior Being—contradicts the eternal truths from which the hopes of life issue, as well as that far-reaching faith that extends beyond the difficulties of this sphere of being into the bright realities of an infinitely higher and purer one. A theory that denies the parental care of an ever-watchful and merciful Creator, whose unalterable covenant is written on the firmament, and without whose notice not a hair of the head is permitted to fall—at whose bidding water burst from the rock, manna fell from heaven, and the sea rolled back until the devoted host had left their native land, then heaved an ocean on their march below. A theory that denies accountability, by degrading mankind to the character of advanced reptiles, and regulates morals by law. A theory which destroys every hope and blasts all the fruits of faith, but offers nothing consoling in their place. Upon what place are we to rest? where find the elements of the sufficient faith? where the consolation which is to keep up the sinking heart? and where the lessons of warning to the oppressor, that there will be a day of reckoning? It is more agreeable to our feelings to look up to God as a kind and merciful creator, who loves, pities and protects us—and this view of Deity does, indeed, furnish a faith sufficient to sustain us in all the difficulties of life—a faith that cannot be annihilated; which has survived the buffetings of ignorance—the persecutions of malice—the

prison—the scaffold—the cross and the grave. With it we are content, and shall “wait the end with patience, and be of good cheer.”

Art. III.—JOHN LAW AND THE MISSISSIPPI RIVER IN OLDEN TIME.

A DESCRIPTION OF THE COUNTRY AND RIVER MISSISSIPPI, IN NORTH AMERICA, BELONGING TO THE KING OF FRANCE.

The following manuscript was presented for our curious inspection by George P. Putnam, Esq., of New York, and is, with his permission, committed to print. It is a very antique paper, and bears upon its face all the evidences of its time. The characters are bold and peculiar, and often indistinct. Mr. Putnam purchased the manuscript in England, among other similar and curious relics of other days. It will have interest from being a document contemporaneous with the extraordinary career and enterprises of John Law, and gravely pronouncing upon them in the language of one yet “in the fullness of faith.” We trust the manuscript may be preserved among the papers of the Louisiana Historical Society. Its date may be fixed at 1718 or 1720.

THIS vast country of Mississippi lies along that large navigable river, Mississippi, being about 800 leagues or about 2,000 miles long. This country borders upon Mexico, whereby the French may soon become masters of Mexico, as well as Peru, with its inexhaustible mines, which may in time alarm the English and their South Sea Company.

Mississippi borders upon the English plantations on the Continent of America, whereby the French can easily fall upon Virginia, Maryland, Carolina, &c., and so may be able to furnish all Europe with tobacco, sugar, &c., much better and cheaper than we can do by the English plantations.*

Mississippi is of such a fine, wholesome, temperate climate, and wonderfully fruitful soil, that it produces everything useful for mankind, and is now come to such a gigantic power as surprises all Europe.

It has now paid all the public debts of France, which at the death of the late King, Louis XIV., extended to 1,800,000,000 livres, which is about £150,000,000 sterling. And now, by the great conduct of the Duke d'Orleans, Regent of France, their public credit is so restored, that from 60 per cent. discount their State bills are now exceedingly above par. Their East and West India, or Mississippi Company is completely formed, which, from 64 per cent. discount formerly, is now above 2,000 per cent. Their bank, established at Paris, is of such vast credit as the like was never before in this nation, where not long ago it was harder to fix a public credit than in any country in Europe; and all this sudden and surprising turn of affairs is owing to Mr. Law, whom the Regent received and approved of his schemes for that end.

The Mississippi Company has at present, in cash and credit, much above one hundred million sterling, which has made France so to flourish, that the city of Paris is now so much frequented by all na-

* When has England ever been mindless of her commercial interests?—Ed.

tions that the nasty dirty street of Quinquempoix, in Paris, is more frequented now than the Royal Exchange at London.*

To describe this vast country and river Mississippi, and how it was first discovered and afterward carried on, is as follows:

We find no account of this river, Mississippi, until the year 1674, though it is thought that something thereof might be known in the days of Hernandes de Soto, who crossed over it Anno 1541, when he returned from his fruitless expedition against Florida.†

Anno 1674.—Count Frontenac, Governor of Canada, supposed that this river fell into the Bay or Gulf of California, and so might open a passage into the South Sea; therefore he ordered Mr. Jollet and some others to undertake the discovery thereof, who set out from the Bay of Puantia, on the Lake of Illinois, and went to the westward by water 60 leagues, and then carried their canoe overland half a league, and went next upon the river Misunsin, which conveyed them into the river Mississippi in latitude $42\frac{1}{2}^{\circ}$; then they followed its course directly south to latitude 34° , and were to go to the mouth thereof, but some frightful stories of devouring monsters and devils who guarded the mouth of this river, and the fear of meeting with the Spaniards, &c., made them return home the same way they had gone, when they had only come to know that this river Mississippi did not fall into the South Sea, nor to the eastward of Florida, as they had supposed.‡

The next discovery of this river Mississippi was made by Monsieur de la Salle, a Jesuit, who had a settlement in Canada in the island Montreal, on the river St. Lawrence, 60 leagues above Quebec. He was made Governor of Canada and proprietor of Fort Frontenac on the Lake Ontario.

Mr. de la Salle, from a desire to find out the rich mines in St.

* JOHN LAW AND THE MISSISSIPPI SCHEME have been made famous in the history of the world. The great magician here was a Scotchman, whose extensive travels and commercial studies brought him to the belief that a paper currency was indispensable in the conduct of great commercial enterprises. He insinuated himself in the favor of the Duke of Orleans, afterward regent of France. On the death of Louis XIV., France was bankrupt; a revolution was expected; the currency was debased; John Law returned to Paris; his magnificent proposal of a bank was acceded to; the stock rose immediately in value; monopolies of various kinds were added to it; France was inundated with paper money; a farther depreciation of coin took place; the Mississippi Scheme was added to the Bank, with exclusive privileges of trade to the East Indies, China, South Seas, and all the possessions of the French East India Company; fifty thousand new shares were created, on which a profit of 120 per cent. was proposed; three hundred thousand applications were made for these shares; all the nobility of France were in waiting upon Mr. Law; for access they secured residences in his neighborhood; three hundred thousand new shares were taken with enthusiasm; the Rue de Quincampoix was crowded day and night; rents rose in it 1,500 per cent.; a cobbler's stall received 200 livres a day from brokers: men carried desks upon their backs to be used by speculators, and amassed fortunes; Law was forced to seek more private quarters—but vain the attempt; his new residence became the resort of all the elite and fashion of France; ten thousand expedients were resorted to in order to see him; one lady had her carriage upset on his approach; immense fortunes were realized in a few days or hours; Paris grew in population, wealth, luxury, and splendor!!

But, alas, the catastrophe! the offended Prince of Conti makes a draft upon the bank for specie; others follow daily and quietly; slight uneasiness beginning to be felt, an edict prohibits persons from holding over 500 livres of coin; the people cry against it; the consternation, the ruin, the bankruptcy which ensued and overwhelmed France is too well known to be repeated. The financial empire of Law became a vast and amazing ruin!—Ed.

† At this period, Europe appeared ignorant of the details of De Soto's Wanderings. See Commercial Review, Vol. III., No. 6.—Ed.

‡ See an article on La Salle, in S. Q. Review, 1845, contributed by us.—Ed.

Barbe, and to find out a nearer passage into the South Sea (than through the straits of Magellan), which he hoped to do by the Mississippi river, Anno 1670, goes to France, where he gets his orders from the Court, and Anno 1672 he returns to Canada to pursue his designs, and so appoints father Hennepin to travel to the northward and to trace this river Mississippi up to its source—reserving to himself the honor of searching for its mouth. But Hennepin (who set out long before De la Salle) first went down the river Illinois into the Mississippi, and instead of going north to its fountain-head, he went first south and down the stream thereof to the Gulf of Mexico, where he found it emptied itself through three different channels or mouths, between the 27th and 28th degrees of north latitude, and then he went back toward its head, as far as 50 or 51 degrees of north latitude.*

Anno 1682, Monsieur de la Salle went down this river Mississippi, which he found parted into two branches about 60 leagues from the sea.† He followed the northernmost branch, and discovered its mouth between 28 and 29 degrees of north latitude.

Anno 1685, M. de la Salle, in order to find the entrance of the Mississippi river at its mouth, whereby to make a communication between Canada and the Gulf of Mexico, gets from the King of France three ships and a man-of-war and provisions and comes into the Bay of Mexico, where he searched three weeks for its mouth; but not finding it, he goes ashore a little to the south-west of its mouth, where he was, unfortunately, murdered and his ships lost, which stopped that project.

Anno 1698, Monsieur de Iberville, a famous gentleman born in Canada, sailed from France into the Bay or Gulf of Mexico, where he found out the mouth of this river Mississippi, where he built a fort and left a garrison therein. He went again a second voyage with new reinforcements, and went far up into the country, where he discovered many savage nations and made alliances with them, and built another fort, which he left well manned and stored. And in his third voyage back to Mississippi he died, which laid aside this enterprise again.

Anno 1712, the King of France, by letters patent, granted to his Secretary of State, Monsieur Crozat, the sole power to settle colonies and trade in Mississippi, and all the countries lying between Carolina on the east and New Mexico on the west. This grant M. Crozat kept twelve years, until Anno 1724, when he resigned it to the French West India Company (for a great reward), who now possess the same and are now called the Mississippi Company.

So that the French have pursued this design of the Mississippi Company for the space of forty-six years before they got it perfected, which they did at last by the assistance of Mr. Law.

How far the French may yet extend this vast country of Mississippi, is not known at present; but that part of it which was granted to Monsieur Crozat (and now vested in the French West India or Mississippi Company), is bounded by New Mexico on the west, and

* Hennepin never descended the Mississippi to the mouth. He fabricated a story of the sort, which has been abundantly refuted. See Sparks' Life of La Salle.—Ed.

† Monsieur De la Salle found no such thing.—Ed.

English Carolina on the east, and by the river Illinois on the north, and the Gulf of Mexico on the south; wherein, if all the tracts of land in Mexico not possessed by the Spaniards and the English (though claimed by both) shall be comprehended, it will take in more than two-thirds of the Gulf or Bay of Mexico; and reckoning from Santa Fé in New Mexico to the English's most northerly settlements in Carolina, is about 24 degrees of latitude, or 1,440 miles from east to west; and from the mouth of the river Illinois to the mouth of the Mississippi river is 150 or 160 leagues in a strait line, or about 500 miles broad from north to south, and therefore 1,440 miles long from east to west.

But this vast country of Mississippi, above described, is only a part of Louisiana, which the King of France (by a reservation in his patent) may enlarge when he pleases. The whole extent of that immense country of Louisiana, reaching to the South Sea, Japan and the Frozen Ocean.

Father Hennepin, in his book, dedicated to King William, of his travels through a great part of that vast country, positively affirms, that Japan is contiguous to North America, and the great Gravius was of that opinion, and that an easy passage may be found out from Louisiana to the South Sea, by rivers which run beyond the Mississippi, deep enough to carry ships of burden, &c. Father Hennepin offered to King William to make this discovery for the glory of England, but his alliance at Spain prevented it; which alliance proved also fatal to the Scotch settlement in Darien.

Father Hennepin says, that this country of Louisiana and Mississippi is so temperate and healthful, that it may be called the French paradise, and the inhabitants are scarce subject to diseases. The soil is so fertile that it yields two crops yearly without plowing or sowing. It has great abundance of sugar-canes, tobacco, cotton-trees, silk-worms, corn, hemp, vines, &c. It has plenty of fishes, fowls, and beasts, of many kinds not found in Europe. Their wild oxen are much larger than ours, and, instead of hair, are covered with fine wool, as fine as on any sheep in Europe. It is also well stored with mines of iron, copper, and silver, in St. Barbara, St. John's and Ende, dug up by the Spaniards, &c., and many gold mines near the river Missouri. But the chief glory of Louisiana is the river Mississippi, the finest river in the world. It springs from several lakes to the westward of Hudson's bay, and bending its course directly south it falls through six large channels or mouths into the Gulf or Bay of Mexico. It is about 800 leagues long by its windings, which is 2,400 miles. It is free from shoals and cataracts, and all navigable within 60 leagues of its source. The channel is deep and the current gentle, except at certain seasons of the year (like the Nile) it swells with floods, by the rains and snow in the northern regions. Its banks are adorned with delightful meadows and groves, and wild beasts, &c., and inhabited by about 200 different nations of tractable and ingenious people. Three of the six mouths of this river Mississippi are fit for the greatest ships, with safe harbors therein.*

* The book of Hennepin, which is referred to, is in general reliable in the description of places, etc. He was a man of great observation, had traveled extensively, and was acquainted with other travelers as well as their writings.—Ed.

The Mississippi river has a great number of other navigable rivers which run thereinto from the east and westward, whereof are six or seven each about 300 leagues in length, which fall therein below the Illinois; and some of these rivers take their source from the Apalochin hills, near to the English settlements in Carolina; and higher up on the same side are many more rivers, which by means of others afford a conveyance into several great lakes, and from thence into the river St. Lawrence and Hudson's bay. Those rivers from the westward are more numerous and much longer. The river Missouri runs from the north-west about 6 or 700 leagues, beginning from a mountain in Cibola, where another river issues forth and runs into the Gulf of California; and probably it is this way that M. de la Salle and Hennepin proposed to go to the South Sea. In short, the vast river Mississippi, with its many branches (extending over all the immense country of Louisiana), may safely open a communication between New Spain and Canada, and between the South Sea and the Gulf of Mexico. So that the old verse applied to Egypt and the river Nile, may be applied to Louisiana and the river Mississippi; viz:

*"Terra suis contenta bonis, non indiga moreis,
Non Jovis, in solo tanta de fiducia Nilo."*

The rivers Mississippi and St. Lawrence (with the lakes and rivers which run between them) surround all the British provinces and colonies on the main of North America; and by some of these rivers falling into the Lakes of Champlain and Erie, the French have made many descents from Canada upon the British northern colonies, and laid some of their provinces waste.

The city of New York (belonging to Carolina) stands on a branch of Hudson river, and there is only a land-carriage of two leagues from the Lake of St. Sacrament, at the bottom of the Lake of Champlain, to the other branch of the Hudson river, within 60 leagues of Quebec. By this means the French made several incursions on the inhabitants of New York, and can come the same way to Virginia and Carolina, from the Lakes of Frontenac and Erie. So that the British plantations lay very naked for the French, because the English have no forts and garrisons to defend their frontiers.

Nova Scotia is the only British province in North America which can be made a barrier to cover their other plantations from the French, both by sea and land. This country of Nova Scotia (or New Scotland) is bounded by the river St. Lawrence on the north and the Bay of Francois on the south (from the river St. Croix west to the Isle of Assumption east), together with the peninsula of L'Acadie. King James VI., in Anno 1621, granted this province of Nova Scotia to Sir William Alexander, Earl of Sterling, who sent here many Scotch gentlemen, who were heritors thereof by their patents as Baronets or Knights of Nova Scotia.

The French (from whom it was first taken) became masters of it again, and kept it until Anno 1654, when the English, under Cromwell, retook it and kept it till the Restoration, Anno 1666, when it was again delivered up to the French, who kept it till Anno 1710, when Queen Anne dispossessed the French by General Nicolson, who

called Port Royal Annapolis Royal; and by the treaty of Utrecht, 1711, all Nova Scotia and the islands thereof (except Cape Breton) is now possessed by the British, who have garrisons, &c., therein.

Art. IV.—FIRES AND FIREMEN.

Of all the terrific demonstrations of the gigantic forces of nature, of the power of the elements, and the most appalling, is to behold a great city wrapped in a general conflagration. How vain and impotent is the strength of man then—when the fiend of fire acquires this masterdom! Look back along the pages of history, and you will find them lurid with the conflagration of cities—their vast smokes trailing like long thunder-clouds athwart the blue skies of the past! Behold the cities of the plain wrapped in the lightnings of heaven, which burned with such relentless wrath, that their very foundations were obliterated, and the ashes of their bitterness yet poison the waters of the Dead Sea. Look at Jerusalem, the chosen city of God, the depository of the world's richest legacy, of salvation—with all her golden temples, and multitudinous spires, that flashed back the light of the Asiatic sun—blasted before repeated conflagrations, from which she ever and anon, phoenix-like, revived, until at last with her beautiful temple, and renowned in history, she was laid in ashes by the Roman Titus—her terrified population shrieked aloud, with one voice, “Let us go forth! let us go forth! for the God of Zion has deserted the city of his love!”

Turn to Rome, the embodiment of all the trophied splendors of antiquity—where science and art, sculpture, painting, and architecture displayed their richest revelations till the whole city was a wilderness of the fine arts! With what queenly pomp, magnificence, and beauty does she recline upon the lap of her lovely Latian shore, bathed in the rich sunset of a Mediterranean heaven! Night passes over, when suddenly at the command of the great imperial despot, Nero, she is enveloped in flames, and all her Seven Hills blaze with the fires of death and destruction. Ten days behold her weltering in that sea of flame, and one half of her loveliness is swallowed up by the jaws of fire. Ah, what a wild chorus of human agony made the refrain of the fiendish *music* of her hellish incendiary.

Pass your eyes down the pathway of time, and in 1666, you behold London—multitudinous London, burning without intermission for five days, till thirteen thousand houses, property worth ten millions of pounds sterling, and more than seven thousand lives, perish in the conflagration! This is the **BIG FIRE** of history, and it was long, very long, before the desolated metropolis recovered from the visitation.

When Napoleon bore the standards of his crushing conquests to the very heart of Russia, the patriotic population of her greatest city rather than suffer its gorgeous dwellings and sumptuous palaces to afford shelter and protection against the rigors of a northern winter, to the invading armies of France, committed all its accumulated wealth to the destruction of fire. Terrible was the scene there present-

ed, as the great funeral pyre of patriotism blazed up to the heavens, and sent its long, red, lurid flashes far over the snows of Muscovy. In its light the pinnacles of the Kremlin shone like a Pharos of desolation ; and the Tartars and the Cossacks, the dwellers by the Black Sea, and from the mountains of the Ural, saw the steel-clad legions and invincible warriors from the sunny vineyards of the Seine and the Rhone, driven back by the fury of one element to perish in the dreadful winding-sheets of another.

These enumerations might be extended, but we desist. Thus ever has it been with fire, when its progress has been unrestrained. It has consumed the noblest structures of human skill and industry, the costliest creations of every art, the proudest monuments of genius and invention, the richest acquisitions of commerce, the most valuable treasures of science and learning—the chief trophies of civilization and social progress in every department. The temple of Epheusus, burnt by Erostratus, to achieve an immortality of infamy, and the library of Alexandria, sacrificed by the malignant bigotry of Omar, are isolated instances from an extended series.

In all the earlier ages of the world, fire was a despot and a terror, notwithstanding its utility and beneficent services when kept under control. Man had not then acquired its masterdom, and it was viewed with awe and wonder, as well as religious veneration. A household familiar, it was yet regarded with fear and trembling, whether displaying its lambent beauty on the hearth, or sweeping with the whirlwind through the ignited forest ; whether smiling in the trembling beauty of the evening star, or hurtling like the blazing arrows of battling divinities through the thunder fields of the heavens ; whether shining—in the thought of Homer—upon the blue plain of midnight, like the multitudinous camp-fires of an innumerable army, or bursting up through the craters of volcanoes, those torches of the world ! and whelming Herculaneums and Pompeiis in its path ! Imagination lent terrors to the power which science had not learned fully to control, and man was in turn the votary, the victim, and the vassal of an element which often in an hour destroyed the accumulated productions of centuries.

It is only within modern times, and comparatively a very recent period, that all the beneficial employments of fire, and effective means of checking and quelling its devastating progress have been discovered. The world for the last fifty years, rests in greater security against this dangerous element than it ever did before. Science and systems of co-operation have given guaranties for the safety of property and life, which, had they existed in the periods of the past, would have spared the world from many of the destructive conflagrations I have alluded to, and have greatly contributed to the sum total of human wealth and prosperity. Not to enumerate the other achievements of science, the improvements made in the fire-engine and its apparatus, by Newsham, Rowntree, Braithwaite, Ericson and others, have erected barriers against the ravages of this element, which have greatly enhanced the security and consequent value of property, and diminished the danger of destruction to human life ; and which are worth more than all the policies of all the insurance offices in the world. It does not belong to me now to designate

these improvements ; let me but linger for a while upon a consideration of the *means* by which these inventions and discoveries are put into practical application.

Man's battles with the elements aided by all the achievements of science, are still severe and terrible. He can make the pinions of the wind waft his richly laden argosies across the bosom of the subjugated sea ; but he sinks helpless as a child before the mighty onset of the hurricane and the sirocco. He has converted the rivers of the earth into channels of travel and commerce, and made them labor as operatives in manufactures and mechanics ; but he is as weak as Canute to impede the progress of the inundation, or control the roused wrath of the ocean. He has hooped the earth around with bands of iron, along which the steam-horse and the locomotive palace—children born from the wedding of the discordant elements, fire and water—speed with the celerity of thought ; but ever and anon some terrible casualty rends his strength asunder, and scatters his wealth and trophies, his torn and mangled members, in such bleeding and chaotic ruin, that not even the mother who bore him could recognize the child of her bosom. He has caught the wild lightnings of the heavens, and tamed them like carrier-pigeons to the conveyance and expression of his thought ; but still the red arrows of the Titans, despite the inventions of a Franklin or a Morse, will cleave the lofty dome, and envelop his palaces and dwellings in a blaze. He has made fire a household slave, a lamp for his feet in darkness, a servant at the altars of his god, an efficient agent in every art and occupation, the illumination of his cities, the spirit of machinery ! till the great Promethean spark vivifies all existence ; but still, as we keep saying, his mightiest energies, his deepest science, his sternest courage, his most wakeful vigilance, are all requisite to check and guide, to conquer and control this wayward element. Individual effort is inadequate to the task, and thence the numerous associations such as yours, for the protection of life and property.

Society has devised no other adequate means for security against destruction and loss than those that are to be found in the bold hearts and stout arms of her sons, when uniting their strength, courage, and vigilance in a common cause. All the devices of law, or of mere commercial union, look only to reparation and relief after the injury has occurred. Insurance companies are instituted upon this principle. Though I would not depreciate their advantages, though I admit that the premiums paid for their policies are investments wisely made, yet if there were no other safeguard against the dangers of fire, one night's conflagration would prove the fallacy of relying upon the assurances of underwriters. In many instances these institutions have themselves been bankrupted, and their own capital perished, amid surrounding ruin, in the ravages of that element against which they vainly pretended to give protection. Acts of incorporation, and charters, and by-laws, and certificates, and not unfrequently the stock upon which they are issued, are but perishable paper, but "leather and prunella," which in a general devastation shrink away as parched, and wilted, and worthless, as any of the scrolls or parchments which were consumed in the palace of the Ptolemies. Who does not remember what happened but a few years ago, in the great fire in New

York! Streets crowded with all the proudest monuments of architecture were reduced to heaps of smouldering ashes; thousands were driven forth without a roof to shelter their heads; men of wealth were converted into paupers, and the incorporated bodies, Phœnixes, and Etnas, and Vesuviuses, were alike submerged in the smoking lava of ruin! These institutions, like all the other interests of the community, can find their only sure reliance in those precautionary fraternities whose principle and policy is to prevent rather than recompense—to keep the man of property secure in his possessions, by guarding against and checking the first footsteps of danger.

Firemen are the sentinels of society. They are the self-constituted guardians of municipal repose. Theirs is no idle, holiday amusement. They assume the heaviest and most responsible duties. Little does the world reflect upon the qualities essential to a perfect fireman. He must be firm, prompt, and resolute; vigilant, faithful, and active; energetic, laborious, and untiring; chivalrous, public-spirited, and philanthropic. All these qualities belong to his character, and all these qualities have been displayed by this class of men. How often, when the hand of the incendiary has applied the torch to the dwelling of some unconscious inhabitant, who is calmly reposing in his stately edifice, with his wife and children around him, little dreaming of danger, has the rapid tolling of the distant bell, and the solitary cry of "FIRE!" rung out upon the midnight air! Then there is a sudden appareling of man, the rushing of swift runners from every part of the city; in a moment the rattling of the engines through the stony streets; the hoarse cry of the director! Soon they reach the spot of the conflagration; the malignant incendiary has done his work well; the flames are bursting out from a hundred points; the stately edifice is wrapped in a blaze; the adjacent buildings have caught like flax; the wind of the night is sweeping the waves of fire in every direction. All is confusion, hurry, and alarm. The firemen come. The engines are wheeled around the blazing scene; the long hose is unwound, like huge serpents, through the streets; suddenly, by superhuman exertions, the engines are put in play; the broad, white, vollied water spouts upon and around the flames! Ah! how they hiss in the contact. The progress of ruin is stopped in this direction; that long line of stately buildings is saved from destruction. But away to the left, the flames make a more terrible struggle. They have found a fuel that yields like tinder to their embraces. In vain are the exertions to extinguish the flames here. The effort must now be made to rescue property and life. Where now is that sleeping father and his family? Some have escaped, but others are missing; some fair child, or maiden in her virgin beauty, is environed in the smoke and flames of the upper stories of the building. "Make way! make way!" is cried through the crowd, and the long ladder is brought and placed against the window. One gallant form rushes up the rounds, and dashes into the blazing edifice. He is lost to the sight! The streams of water play in to protect his way; but the crumbling wall reels and totters, and is about to fall. Great God! shall he perish in the ruin? No! He reappears with the form of the lost one in his arms; he leaps upon

the ladder, and descends amid the long, loud shout that hails his safety and his triumph!

Is this but a picture of fancy—the coruscations of an inflamed imagination? No: such scenes have occurred a thousand times in the annals of our cities, and they show the courage, the chivalry, the heroism of our firemen. All honor, then, to the brave sentinels and soldiers of peace!

But there are other properties of character in the fireman, which, if less striking and brilliant, are equally honorable and praiseworthy. The disinterested benevolence, the unselfish devotion, the philanthropic purposes, looking to no recompense but a consciousness of well-performed services, which are the parents of all such associations as this, and among the highest characteristics of human nature, and which, when widely developed among a people, are the surest reliance, the richest property of a nation. Rightly did I hear an eloquent orator say in Congress, that if we had no other standing army, our country would be safe in her firemen—her sword in war, as they are her shield in peace.

NOTE BY THE EDITOR.—GREAT FIRES.

The above paper, contributed by our eloquent friend, cannot be considered altogether out of place in the Review. A glowing fancy has painted, in strongest colors, the terrors of the devastating element which sweeps away our cities at a breath, and involves in ruin great communities. Are not fires and firemen subjects of practical interest enough, to secure them a place among the other agencies which control our lives and fortunes?

In every city in the Union, the FIRE DEPARTMENT has come to be of leading importance, and comprises the most active, energetic, and valuable citizens. They are a surety to our property and our lives—the watchmen who snuff the first approaches of danger.

It is true that their institution is of modern date. Other ages had little of the kind. The conflagration raged at will, and mocked the undisciplined efforts of mere crowds, awing them into blind dismay or stupid resignation!

The FIRE or forcing ENGINE is ascribed to the inventive genius of Ptolemy Philadelphus. It is supposed the Romans were acquainted with some such invention, for the letter of Pliny to Trajan complains that Nicomedia was destroyed by a neglect in using it. The ancients, however, must have made little use of the engine, since it is ascribed as the independent invention of a German. In 1518, it was used in Augsburg, Germany. Engines began to be built in 1657 extensively by Hantsch, and were introduced into Paris, 1699. These were very rude, and it was long after that the air chamber was appended. Small engines of this construction weighing sixteen pounds, and carried by one man, threw a jet of water thirty feet, and this was the model! The hose was invented by two Dutchmen at Amsterdam, and it is said that before its introduction the city lost 1,024,130 florins in ten years, and afterward but 18,355 florins in five years, by fire. Mr. Perkins added the rivets, instead of seams. Of the subsequent improvement in the engine, the text has sufficiently spoken.

It would be a very interesting paper that traced the history of great fires in our own and foreign countries. What extraordinary statistics of ruin, death, misery, and devastation! Our friend has referred to several instances, but what are they? The frightful losses that have thus been sustained, who can chronicle?

Professor Olmstead, of Yale College, we have learned, has collected together many interesting materials upon this head, in the design, perhaps, of contributing a volume to the press. The facts and inferences may have much practical value. We regret our inability to communicate with the Professor, who might have furnished some interesting hints for our note.

It would not be difficult to determine with some degree of accuracy the annual losses which are sustained in the United States by fires, and the whole expenses of the Fire Department. In many of the cities records are kept. The books of Insurance Companies will show how much they are called upon to pay, and some estimate may be made of the ratio of insured and uninsured. Statistics of this sort would be of great value to our Insurance Companies, and we marvel that some one has not collected and arranged them in a permanent form.

Having fallen into something like this train of thought, it occurred to us that an hour or two might be spent, not unprofitably, in calling to mind some of these noted catastrophes which have befallen mankind. Of course it would require volumes to go back very far.

The great fire of London comes in first, and has furnished Mr. Ainsworth the groundwork of an interesting romance. Much of mystery hangs over it. Houses, towers, palaces, and temples were reduced to ashes at a blast. Two-thirds of the capital of Europe lay smouldering! 200,000 inhabitants fled to the fields to make their beds or collect their scattered and miserable rags!

However, we must be satisfied with a glance at the losses of the past fifteen or twenty years, for these are more within memory. They show that even yet, with all our art and science, the despot reign of fire has not been checked, but mocks and baffles the impotent efforts of man.

In the memory of almost every reader, are many terrible conflagrations. We shall introduce some of the more notable of those which have occurred since 1833 in our own country and abroad, taking no notice of the thousands of minor losses.

In 1833, two tremendous and unparalleled fires swept over Constantinople within a week of each other, destroying, the one 2,500, and the other 850 houses!

In 1835, a great fire destroyed 50 or 60 houses in Charleston, S.C., and the famous OLD CHURCH OF ST. PHILIP, consecrated by so many memories of olden time.

In 1835, 15th December, the memorable 15th—a little spark performed its mission, and FIFTY-TWO ACRES, closely and compactly built, of GREAT AND TOWERING HOUSES and stores were swept away in NEW YORK—648 buildings! Who will forget the dismay and ruin—EIGHTEEN MILLIONS OF DOLLARS in a few hours—the earn-

ings of years of toil and enterprise are gone for ever, and beggars created by thousands!

But we have no time for these reflections. With some pains and labor we have collected together the chief fires that occurred between the years 1836, and Sept. 1846, ten years. Such of them where the loss is under \$50,000 we omit; and it is probable many have escaped our observation, we mean in our own country, for it is to this we particularly confine ourself, where the loss has been greatly more.

STATISTICS OF FIRES.

1836.—Bowery Theatre, New York, burnt; loss.....		\$100,000	
“ Fire in Quebec, 16 buildings.....		300,000	
“ TEA WAREHOUSES, LONDON.....		1,800,000	
“ Washington Post-Office, Patent Office; all models, &c.; loss not given—at least, we suppose.....		500,000	
“ All fires in Boston together this year.....		151,000	
“ St. John's, New Brunswick, 150 buildings; loss not given; could not have been less than \$2,000 the building.....		300,000	
“ London, all fires this year.....		2,400,000	
1837.—Bowery Theatre, N. Y., third time.....		75,000	
1838.—CHARLESTON ONE-THIRD DESTROYED, 1,200 houses; insurance companies break.....		4,000,000	
“ Nantucket.....		150,000	
“ Hudson, N. Y.....		200,000	
“ Boston, 1829.....	128 fires	\$112,000	
“ 1830.....	85 “	58,000	
“ 1831.....	51 “	34,000	
“ 1832.....	133 “	54,000	
“ 1833.....	144 “	94,000	
“ 1834.....	103 “	38,000	
“ 1835.....	155 “	200,000	
“ 1836.....	208 “	151,000	
“ 1837.....	136 “	167,000	
9 years.....	1,143 “	900,000	900,000
Insurance effected.....		\$470,000	
1838.—Mobile, 100,000.....			100,000
1839.—Port Gibson, Miss., \$300,000; Eastport, Maine, half the property of town, \$24,000; Cincinnati, \$40,000; St. Johns, N. B., \$900,000; St. Louis, extensive fire, say \$100,000; New York, theatres, churches, &c., \$400,000; Natchez, \$70,000; PHILADELPHIA FIRE, \$1,500,000; New York, \$1,000,000; Aiken, S. C., \$80,000; MOBILE, awful fire, 500 BUILDINGS; loss of property not given; we estimate \$1,000,000; another, 11 squares, \$120,000.....			5,424,000
“ CONSTANTINOPLE, 5,000 HOUSES.....			23,000,000
“ Prussia, \$500,000; Quibdo, on Spanish main, merchandise alone \$1,000,000—other property perhaps \$500,000 more; Chicago, 19 buildings, value perhaps \$80,000; Newton, N. Y., \$70,000.....			2,150,000
“ In the month of October, this year, there were no less than 24 fires, and \$4,000,000 property destroyed in the United States!			
1840.—New York, \$500,000; Yazoo, Mississippi, half the town burnt—loss not stated, must have been at least \$300,000; steamer Lexington, 200 lives lost on the Sound; New York, \$1,000,000; Wilmington, N. C., ONE-THIRD OF THE TOWN, 500 buildings, \$500,000; New Orleans, St. Louis Exchange and other property, over \$2,000,000; Louisville, Ky., \$300,000; New Orleans, \$300,000; Penn Yan, N. Y., \$80,000; Louisville, several fires, \$70,000.....			5,050,000
“ Salenchez, Switzerl'd, 250 houses, all but four on fire; 100 lives lost.....			1,000,000
“ San Fernando, Cuba, ENTIRELY DESTROYED, estimated.....			1,000,000
Total.....			48,600,000

Brought forward.....	\$43,608,000
1841. New York, \$335,000; Georgetown, S. C., \$500,000; New York, \$200,000; St. Johns, N. B., vessels and buildings, \$1,200,000; Parisburg, ENTIRELY DESTROYED, say \$500,000.....	2,755,000
“ TOWER OF LONDON BURNT, built by James II., 300,000 stand of arms in it; value unknown, suppose.....	3,000,000
“ ONE-THIRD OF SMYRNA DESTROYED—10,000 houses, 40 persons killed, 20,000 destitute; loss unknown, suppose.....	6,000,000
1842.—Baton Rouge, La., \$100,000; Detroit, Michigan, \$150,000.....	250,000
“ In the four years preceding this, there were in London 2,464 fires, 300 being by bad fire-places, 396 by candles.	
“ New York, 40 or 50 houses, unknown, suppose \$500,000; Columbia, S. C., \$200,000; Norwich, Conn., \$100,000; Boston, year to 1st Sept., \$93,000; Philadelphia, year to 1st June, \$362,000, 189 alarms in all; American theatre, New Orleans, loss not known, say \$100,000; Richmond, \$800,000; Morrisville, Indiana, town nearly destroyed, say \$200,000; New York, \$250,000.....	1,885,000
“ HAMBURG, GERMANY, FOUR DAYS' FIRE—61 streets, 120 lanes, 1,992 houses, 498 small houses, 468 cellars, 3 churches, 300,000 volumes, 4,000 machine models; fire seen 100 miles; total loss estimated over.....	30,000,000
“ Koseger, Germany, 179 houses, unknown, suppose.....	1,000,000
“ Kamenz, Germany, nearly destroyed, suppose.....	500,000
“ Liverpool, great warehouse.....	2,700,000
“ Rheinback, Germany, half destroyed, suppose.....	500,000
1843.—Newbern, N. C., \$100,000; Tallahassee, Fla., \$500,000, EVERY STORE AND SHOP; Fall River, \$400,000; Valparaiso, Chili, \$915,000; Baltimore, whole year, 153 fires, say \$100,000; Boston, whole year, \$140,000.....	2,155,000
“ Mimordia, France, town destroyed, suppose.....	600,000
“ Kingston, Jamaica, 1,340 HOUSES, besides out-houses; loss not stated, must be at least.....	2,000,000
1844.—New Orleans cotton press and cotton.....	700,000
“ Canton, China, 1,500 HOUSES; loss not stated, must be.....	5,000,000
“ Resched, Persia, DESTROYED.....	2,500,000
“ New York, whole year to 1st Aug., \$78,000 in buildings, \$173,000 in furniture, &c.; in 1843, it was \$72,000 by first and \$173,000 by last.....	500,000
“ Guadaloupe.....	1,000,000
“ Ship and cargo, New Orleans.....	120,000
1845.—GREAT PITTSBURGH FIRE—23 squares, 1,000 houses, a mile of surface, one-third of city, 56 acres of buildings.....	3,479,950
“ Pittsburgh, 30 to 40 buildings }.....	500,000
“ New York, 100 buildings }	
“ QUEBEC, GREAT FIRE—1,630 houses, 46 human beings destroyed..	
“ St. Johns, N. B.....	300,000
“ Matanzas, Cuba.....	1,200,000
“ Fayetteville, N. C. IN RUINS.....	500,000
“ Quebec, ANOTHER GREAT FIRE two months after last, 2,000 houses; losses by both fires.....	8,000,000
“ New London, Conn., \$500,000; Barbadoes, W. I., \$2,000,000.....	2,500,000
“ GREAT FIRE IN NEW YORK, 546 buildings.....	6,000,000
“ New York, \$100,000.....	100,000
“ ANOTHER GREAT FIRE IN SMYRNA—one mile and a half of the town destroyed; loss, estimate.....	2,000,000
“ Canton, China, 1,259 PERSONS DESTROYED by the burning of theatre.	
“ Bordeaux, France, in Brandy.....	600,000
1846.—Theatre, Quebec, 50 lives; La Prairie, Canada, \$250,000.....	250,000
In three months, 1845, the losses in U. S. by fire were \$15,000,000!	

Total in 10 years.....\$137,362,950

Thus, from an imperfect view of a period of ten years, hurriedly collected, and taken only from important points, regardless of

thousands of minor losses, we have *one hundred and thirty millions of dollars* in property and effects, committed to the devouring element. But this cannot be supposed more than half the truth, considering Europe, Asia, and America, throughout all this period, and taking into account the smaller losses, and that immense class of losses not noticed at all in our calculations, viz.: those which grow out of the interruption of trade, etc., etc. We have, then, in a fair estimate, \$275,000,000. *Two hundred and seventy-five millions of dollars* lost to the world from 1836 to 1846, by the ravages of fire alone—an average of \$27,000,000 a year! sufficient to pay all the expenses of the American government in the same time; equal to the whole foreign commerce of the United States for one year; one fifth of the whole annual product of the United States in agriculture, manufactures and commerce; more than our whole banking capital from Maine to Louisiana; sufficient to purchase the absolute necessities of life one year for all the inhabitants of the Union; double the cost of all the railroads in our country; greatly more than the total of all State indebtedness! Who shall limit the ravages of this amazing influence?

It will be observed of the catalogue of fires before given, that \$37,000,000 of loss occurred in our country, being an average of \$3,700,000 a year, which might be considered a fair average calculation annually for every period of ten years. Now, when it is considered, as before remarked, what numerous losses, direct and indirect, have not been chronicled by us; to which, were the whole expense of the fire department added, and all expenses of engines and machinery, and police, the average loss by fire during the last ten years will not be rated lower than \$8,000,000 or \$9,000,000 annually, and the average losses for years to come not less than \$5,000,000 or \$6,000,000, an amount sufficient to carry on the railroad proposed from Lake Michigan to the Pacific ocean, as fast as labor could urge it!

In the tables we have given it must be regarded extraordinary that great fires have, as it were, a contagious character, and occur at times almost simultaneously in different parts of the country, and often in the same place. Thus, we have two vast conflagrations in 1833 in Constantinople; two great fires in 1839 in Mobile, within a few days of each other; \$9,000,000 of loss in the single month of October, 1839, in different parts of the Union; two enormous fires in Quebec, 1845, almost the same month, and in three months, in the United States, in 1845, upward of 13 or 14 millions of dollars destroyed! In cities, too, certain districts appear to be fated. We have known a square burnt three times to the ground in four or five years. Doubtless these are not all remarkable coincidences and inscrutable providences. The hand of man is not always idle!

The great fire of London is said to have been predicted long before by zealots and soothsaying enthusiasts, and occurred almost in the terms of the prediction.

But this interesting subject we must leave to the reader. It is capable of great extension, and we should be pleased if some one would resume it in our pages. For example, could we have the statistics of losses by fire since the Revolution, or in the history of our

great cities, the loss of life, etc., how interesting and valuable this may be, and then the results of Insurance Companies, the losses and profits, the fire department, the fires at sea and by lightning—what a wide subject is there here.*

Art. V.—DIRECT TRADE OF SOUTHERN STATES WITH EUROPE.

No. II†.

FOREIGN COMMERCE—OUR SOUTHERN CITIES—REVIVING ENTERPRISE AND PROSPERITY—RICHMOND, CHARLESTON, MOBILE, SAVANNAH, AND NEW ORLEANS. POSITION OF THE SOUTH—HER DUTIES, HEALTH, AND ENTERPRISE. SOUTHERN LATITUDES—SLAVERY AND THE RIGHTS OF SLAVE STATES—COMMERCIAL DEPARTMENT IN UNIVERSITIES—SOUTHERN COMMERCIAL CONVENTIONS. ■

THAT the Southern and South-western States have not had their due weight in conducting the FOREIGN TRADE of the Union, has long been matter of complaint. There was a period when this could not be alleged with any show of truth; why this period has been allowed to pass it would be difficult to determine. We have all the material of export, and what the whole world must want; we have wealth and capital, and it would be hard to show a want of energy when a proper field is presented, Our timber for ship-building is unrivaled; with all of this, however, we have been tributary to other sections, and content with the character only of a great agricultural people.

Let us take Richmond, Charleston, Savannah, Mobile, and New Orleans. Their annual exportation of agricultural products is immense; it is conducted in Northern shipping, and the return cargoes received at Northern ports to be re-shipped again with great expense to us, who sit patiently awaiting the result. The city of New York will import six-fold more than all of our Southern States† taken together, and to a great part for the consumption of the Southern and Western States. All the profits of this commerce, legitimately ours, are lost.

Is this natural or necessary? Are there not means within reach to

* FIRES IN BOSTON, SEA AND LAND.—From Shattuck's admirable "Census:"

Years.	Marine Risks ins.	Fire Risks ins.	Marine Losses.	Fire Losses.	Alarms	Prop. destr'd.	Insured.
1840	38,278,737	49,839,951	1,441,844	375,144	113	77,973	58,632
1841	39,145,131	50,268,858	992,539	105,324	140	102,972	36,920
1842	32,091,673	46,605,789	875,613	117,140	190	90,008	44,536
1843	34,793,990	42,395,538	695,492	160,288	232	128,666	90,083
1844	33,134,356	42,376,155	592,874	98,663	267	194,083	95,352
1845	36,765,845	53,940,539	1,071,153	326,193	223	231,191	172,940

† See Commercial Review, June, 1847.

‡ As, for example, in 1836, her imports being \$118,253,416; Virginia, \$1,106,814; S. Carolina, \$2,801,361; Georgia, \$573,222; Alabama, \$651,618; Louisiana, \$15,117,649, or all Southern States, \$20,250,664. In 1845, New York, \$70,909,085; all Southern States together, \$11,407,817, or nearly seven to one in favor of New York!

concentrate among us some portion at least of the wealth derived from foreign commerce? Would it not employ our population, enlarge our cities, and strengthen our institutions?

Southern education has indeed been faulty in many respects, and in none more than this, that it has done nothing for the merchant classes; indeed, it is but lately that these have been elevated to their true position. It is within our short recollection when something disreputable was attached at the South to the trade of merchandising. It would not suit the better order of families or their sons; the merchant class was an inferior one! What could be hoped from such a state of public opinion? *But that day has passed.* We are acquainted with young men of the first influence in South Carolina, who are now to be found in the counting-room. Men of refinement, of education and worth, many of whom we fondly remember as fellow-students in college days. We rejoice in these things, and trust that the noble example will have many followers. It is thus that merchants must be made and advanced.

It is impossible not to observe the great evidences of improvement at the present moment in Southern cities. Charleston and Savannah have never been more flourishing; we hear of manufacturing establishments, of steam-ships to Havana, of railroads intersecting all parts of the State, to the mountains and to the fruitful Western valleys. It would seem as if a spell had been broken, as if the seal of the casket were ruptured, which, in the Arabic tale, liberated the cramped proportions of a giant.

See, too, it is found that we may approach the Pacific shore over Southern territory—that a great railroad may throw in a few days, and by a route comparatively easy, the commerce of the Indies into our laps. Whenever was there a region more favored?

We talk of a line of steam-ships to Europe; Charleston would be an admirable point for such a line, and were her energies properly directed it would be admirably sustained. A similar line, it is said, will be soon established from New Orleans, in a great measure through the enterprise of our fellow-citizen, A. Gordon, Esq., now in Europe, in connection with the design.

Some years ago the South evinced for a short time the deepest interest in foreign commerce; several great conventions were held, with the largest delegations. We had the ablest speeches ever delivered in the country; the most profound and elaborate reports; the best RESOLUTIONS in the world. But what has become of all this? Have we gained the foreign trade? Do we appear any nearer the desired consummation? Are we working out the great end? Alas, little of the kind; we have almost forgotten the conventions. But they shall not be forgotten—we will invoke as it were their dread ghosts, to stare even our hardihood out of countenance. We cannot say, shake not those gory locks at us. The guilt is ours, and in acknowledging it let us be penitent and sin no more.

Men tell us that the Southern States can never become the centre of great commercial operations. We heard this asserted boldly a thousand times over, during our travels at the North. The climate is uncongenial, say they—produce corrupts in your summers—you have no energy in such hot regions—slavery retards you; make

your cotton, your sugar, your rice, and tobacco as much as you please, but there is an end of it, and will ever be.

We are tired of refuting objections, which have even been tolerated at the South itself. The city of Charleston is as healthy all the year as any city in the world—perhaps the healthiest city. The statistics of New Orleans mortality, excluding the present season, are lower than those of New York. Even including it and taking into account the class of population who have died, New Orleans will not compare disadvantageously.

We are satisfied that there are many portions of the South which would show as low mortality for all ages below ninety, and less above that age, than any portion of the North, if the population could be confined to those localities for one hundred years. Charleston and New Orleans are often cited as instances of sickly places abounding in centenarians, but we shall give good reasons farther on for the opinion, that these cities, to their native or acclimated inhabitants, are, perhaps, the healthiest in the United States.

Though occasionally cases of severe billious fevers may occur in southern seaports, most of which are contracted out of town, *epidemics* of billious or congestive fevers are wholly unknown. The highest number of deaths, in Charleston during any one year for the last eighteen, from *all* fevers except yellow fever, is eighty-one, and the aggregate for this whole period is but six hundred and fifty-six,—a result which will much astonish those writers who are not familiar with southern statistics. These facts illustrate very clearly the peculiarity of *city climates* and diseases. If the population of Charleston, for example, which has varied little from thirty thousand for the last eighteen years, had been living in the country *around* the city, or scattered through the billious fever region of the South, no one can estimate within one thousand of the number of deaths which would have occurred during this long series of years.

The statistics of Charleston show a lower mortality among its *acclimated population* than any northern city, and the physicians of Mobile and New Orleans will give the same testimony in favor of these cities. Mobile and New Orleans, too, possess the great advantage over the former city, of being surrounded by healthy country. When these cities escape yellow fever, which attacks the unacclimated alone, they enjoy an exemption from all disease which is almost incredible.*

Complain of produce and costly goods corrupting or deteriorating in Southern climes! Venice, a southern city, conducted the trade of all the East, and was the entrepot of the world's commerce for the main period of her history!

And then that Southerners naturally are luxurious and want energy. They may be so now to an extent, and for adequate causes; but not necessarily. Has the South ever been backward in contributing her quota of great minds, and working minds, in every department of our country, in peace or in war? Antiquity refutes the libel that Southern latitudes are not fitted for extensive commerce. The empires of Assyria, Egypt, Media, Persia and Arabia, were southern. All civilization comes from the South—the Greeks and Romans were Southerners. We have spoken of Venice, a southern city. Were not all the southern Indian tribes on the discovery of America, more advanced in civilization than the northern—Mexicans, Peruvians, Natchez, &c.? Time was when the North was looked to for *nothing*, shall it now be looked to for *everything*?

Nor let us be misunderstood; we have the broadest notions of our country; we cherish Maine and Louisiana as sisters; we have no jealousies of the North; we love its extraordinary energies and advancement; we have rejoiced in the progress of its States in

* Commercial Review, Vol. III., No. 5, pp. 364, 366, 367.

wealth, enterprise, population, intelligence and resources; they constitute great communities. But let us imitate as well as admire; let us not forget ourselves, our rights and duties. It is time that the South *should* be understood correctly, and aspersions forever silenced. The GREAT SOUTH deserves as much of our panegyric as the great West or North. The giant progress of this nation cannot and will not be confined to localities.

Nor do our Northern brethren understand us upon that vital question of slavery. They have allowed us to be visited with sneers, jeers, abuse, misrepresentations of the most malignant stamp, in a matter with which no one but ourselves and our Maker, by any law of man or of nations, can have a rightful concern. Our national councils have been perplexed, our progress stayed and measures threatened, equivalent as we the people of thirteen independent States regard to annihilation, as an integral part of this Union. We are abused for calculating the value of a union which threatens us with utter desolation and ruin. We are called fanatical, inconsiderate, disorderly, factious, when protesting and crying out against such unhallowed invasions upon the rights and even the existences of freemen. It is possible our sensitiveness is great—it is right that it is so. Are men to “snuff the approaches of danger in the tainted breeze,” and not avert it? God knows if let alone we can co-operate with our Northern brethren, can give them of our labor and take of theirs; we can ply the shoulder with them, love them, live with them—but *it must be as equals!* Let us alone, as we let you alone, and as you let European nations alone, and the destinies of our country will be great indeed. An opposite course is too sad to contemplate. It is sufficient that we, who are the best judges, are satisfied with our institutions as they are, and will change or alter them just as soon as we regard it desirable. On our head be all the responsibility!

It becomes the South, however, to increase its strength and weight in this Union, construct its railroads, extend its commerce, build up its manufactures, protect its arts, endow its universities and colleges, provide its schools, and prepare, however the case may be, for whatever God has in store in that future, through which, to such a bad pass have matters come, no man can clearly see a single year. The madness or imbecility has not yet come upon us, with which, it is said the gods afflict those whom they design to destroy.

But to be done with this, we invoke the South to awake. Two months ago we prepared, with much pains, a paper showing the importance of *educating Southern merchants*. We proposed a professorship of COMMERCE and STATISTICS in the new University of New Orleans. The reader may refer to that paper. Nor have we finished the subject, nor shall we finish, until the great and desired consummation is attained, and one great step taken in advancing the position of the South-west. In another page of this Review we resume this commercial professorship.

The remainder of our space shall be occupied with the Southern Conventions, noticed at the opening of this article. We have already adverted to the one held in Charleston in 1839, and introduced its resolutions. At the present time we will examine the one of a previous year at Augusta, Georgia. They deserve to be held in

memory. Their papers are worthy of preservation. Shall it not indeed happen now, that while there is a Memphis and a Chicago Convention, to promote the home or domestic trade of the South and West, one equal in respectability and importance shall be held, say at New Orleans, to consider the great question of our FOREIGN TRADE with the rest of the world, and the means of promoting it? We dislike political conventions; but these are unobjectionable.

To the subject. The Augusta Convention consisted of the following delegates :

From South Carolina.—George M'Duffie, W. W. Starke, James Adger, Ker Boyce, R. W. Fort, William Barnwell, J. Cuthbert, S. G. Barkley, Edward Deilus, L. Bowie, J. L. Pearson, Andrew Wallace, J. Wright, Alexander Young, David Alexander, James Gadsden, Arthur P. Hayne, Alexander Black, Whitefield Brooks, R. C. Allen.

From Georgia.—William Dearing, Burwell Pope, W. L. Mitchell, H. A. Fraser, Wm. Brown, John H. Howard, Thomas Hoxey, Thomas F. Foster, Seaborn Jones, Wm. P. Yonge, Thomas Preston, jr., D. A. Gaillard, J. T. Rowland, A. H. Chappell, J. A. Cuthbert, A. H. Kenan, R. K. Hines, N. G. Foster, W. A. Shields, A. J. White, Edward Birdsong, Wm. A. Cobb, J. W. M. Berrien, P. B. Connelly, D. E. Bothwell, J. W. Bothwell, Thos. Butler King, Joseph Cumming, John Cumming, S. B. Parkman, B. E. Stiles, D. L. Adams, Thomas D. Rice, Pearse O'Leary, James L. Baker, John Phinzy, Samuel Hale, Wm. W. Holt, Peter Bennoch, James Harper, John Bones, John Kerr, Adam Johnston, C. J. Jenkins, H. H. Cumming, G. W. Crawford, B. H. Warren, R. F. Poe, J. M. Adams, E. B. Beall, W. M. d'Antignac, D. W. St. John, F. M. Robertson, Paul Fitzsimons, A. J. Miller, E. Hamilton, Lancelot Johnston, W. F. Van Lamingham, J. E. J. Horne, Jas. W. Lathrop.

The Hon. Ker Boyce was appointed president. Gen. McDuffie, from a select committee, made a report. He adverted to the fiscal derangement of the country, to the depression of the staple-growing States, the decline of trade, and low estimation of commercial character. He referred to the advantages of the Southern States for commerce, lower rents, lower freights from Europe (since vessels must come to us, if they come in ballast), the presence of all exporting commodities, and demand for those of importation. We make one extract from the paper :

The avocation of the merchant requires as much character and talents, and is of as much dignity and usefulness, as any other pursuit or profession, and the senseless prejudice which would assign to it an inferior rank, has been blindly borrowed from those ancient republics and modern despotisms, whose policy it was to regard war as the only honorable pursuit. As agricultural productions, which find their market principally in foreign countries, constitute the almost exclusive sources of our wealth, the mercantile class is as indispensable to our prosperity as the agricultural. Their interests are inseparably identified, and whatever affects the prosperity of one, must have a corresponding influence on the other. How much, then, does the general welfare of the staple growing States depend upon diverting into the pursuits of commerce a large portion of the capital, the character, and the talent which have been hitherto directed too exclusively to agriculture and the learned professions? It is the deliberate opinion of the committee, that no one change could be made in our pursuits that would so largely contribute to the public prosperity, and that those public-spirited citizens who shall take the lead in this new career of useful enterprise, will deserve to be regarded as public benefactors.

Mr. Jones offered this resolution :

Resolved, That it is a sacred duty which the citizens of the Southern and South-western States owe to themselves, their posterity, and their country, to give a decided preference, (where the terms are equal,) in procuring their supplies, to our merchants who carry on a direct trade with foreign nations.

Mr. Jenkins proposed this :

Resolved, That as an introduction to a direct importing system at the South, it is indispensably necessary that the crop of the present year should be directly exported by Southern merchants and planters, and that to effect this object, the Southern banking institutions should lend such aid as they safely and conveniently can.

Mr. McDuffie moved for the appointment of a committee to prepare an address to the people of the South-west, of which, we believe, he was the chairman, and performed the duties. As this is a valuable paper, we shall now introduce it, and continue in subsequent numbers the subject of SOUTHERN FOREIGN COMMERCE. With the political doctrines of the paper, of course, we have nothing to do.

Of the numerous subjects deeply and intimately connected with your permanent prosperity and happiness, which have, during the last fifteen years demanded of you all the consideration which your intelligence could bestow, and all exertions your patriotism could contribute, none have come more directly "home to your business and your bosoms," than that upon which we now propose to address you.

The struggle in which you were so long engaged, in relieving your commerce from the burdens imposed upon it by partial legislation, has been terminated by a compromise, which, if finally carried out in the liberal and magnanimous spirit in which it was conceived, cannot fail to perpetuate the political harmony which it was the means of restoring. But it is not to be disguised, that the system of high protecting duties, falling mainly upon the productions of the exporting States, combined with the system of federal disbursement, which expended the revenue resulting from those duties almost exclusively in the Northern States, has converted the slight superiority originally possessed by the northern cities, in the business of foreign importations, into an overwhelming preponderance, and diverted almost the whole of the immense commerce of the Southern and South-western States into artificial, circuitous, and unnatural channels. In the commercial relations of extensive and wealthy communities, it was to have been expected that effects would for some time survive their causes; and accordingly that portion of the commerce of the United States which is appropriately *our own*, consisting of an exchange of our agricultural productions for the manufactures of foreign countries, is still carried on principally through northern cities, by the agency of northern merchants, who levy a transit duty—voluntarily paid, to be sure, but utterly incompatible with a just and enlightened view of our own interests.

Now that the system of compulsory tribute is greatly reduced, and rapidly coming to a close, we are called upon, by every consideration of enlightened self-interest, to signalize our complete commercial emancipation, by throwing off this system of voluntary tribute, which can continue only by our consent and co-operation.

A candid and dispassionate survey of the actual condition of our foreign commerce, as compared with our great natural advantages, will demonstrate that to bring about this consummation, "so devoutly

to be wished," by every patriotic citizen of the Southern and South-western States, nothing more is necessary than a resolution on our part to accomplish it. To will is to do it.

A brief analysis of our foreign commerce will now be presented. Taking the imports and exports of the United States for the fiscal year 1836, as a criterion, we have the following extraordinary statistical phenomena :

The imports of the whole of the United States, amounted, in round numbers, to \$190,000,000. Those of New York alone amounted to \$118,000,000, while those of all the Atlantic States south of the Potomac, and the States on the Gulf of Mexico, amounted to only \$20,000,000, and those of South Carolina and Georgia to only \$3,400,000. During the same year the domestic exports of the United States amounted to \$107,000,000, of which New York exported only \$19,800,000, against an import of 118,000,000, while the States South and South-west of the Potomac, exported 78 millions against an import of only \$20,000,000, and South Carolina and Georgia, each having a commercial seaport, with a safe harbor on the Atlantic, exported \$24,000,000 against an import of only \$3,400,000! The contrasts here exhibited are absolutely astounding, and it is confidently believed they are without any parallel in the history of independent States. New York, it will be perceived, imported six times the amount of her exports, while the Southern and South-western States imported little more than one-fourth of the amount of theirs, and South Carolina and Georgia imported less than one-seventh part of the value of theirs. The case of these two States furnishes the fairest criterion for determining the degree of that ruinous disparity which exists between the exports and imports of the States which produce the greatest agricultural staples, which are almost the sole foundation of the foreign commerce of the whole Union.

New Orleans, from its geographical position, imports West India productions for the Valley of the Mississippi, and specie from Mexico for the United States generally—articles which are not obtained in exchange for the staples of the South-western States, and form no part of the commerce by which those staples are exchanged for foreign productions. If only that part of the imports of New Orleans, which is obtained from abroad in exchange for cotton, were taken into the estimate, the aggregate imports of all the staple-growing States, like those of South Carolina and Georgia, would no doubt sink down to less than one-seventh part of their exports.

Such being the actual state of our foreign commerce, it deeply concerns our welfare to inquire, in the first place, whether it is a sound and natural condition of this great interest? and if it be not, what are our available means of placing it in a natural and healthful condition?

That it is neither a natural nor a salutary condition, will be apparent from a few obvious considerations. Viewing the subject as one strictly of political economy—and in that light only are we now considering it—New York, Pennsylvania, and Massachusetts are, for all such purposes, to be regarded by the staple States as foreign communities; not less so than Great Britain and France. The bonds of our political Union, as confederated States, however they may bear

upon other aspects of the subject, have no bearing whatever upon the question of national wealth as it relates to the several States. The federal constitution, giving it the utmost amplitude of construction, cannot annihilate the intervening distance of a thousand miles; nor has it annihilated the separate and independent organization of the States. We cannot, therefore, regard the wealth of New York or Pennsylvania as the wealth of South Carolina or Georgia, or as contributing towards it, upon any other principle than that mutual dependence happily existing between commercial communities, which makes the prosperity of the one conducive to that of the other, in proportion to the extent of the exchanges of their respective productions. Every cotton planter must have perceived, that the price of his staple depends more upon a prosperous condition of the trade of Manchester, than upon that of all the cities of the United States, north of the Potomac. And, however it may shock the nerves of that false and mistaken philanthropy which sometimes assumes the guise of patriotism, we must be excused for "*confessing*" the homely virtue of preferring the prosperity of our own respective communities, though derived from a direct trade with foreign countries, to that of our northern confederates, derived from the same sources, but at our expense.*

Applying these plain and obvious principles to the existing state of our commercial relations, it is apparent that the profit made by the merchants of New York and other northern cities, upon the exchange of our staples for foreign merchandise, is as effectually abstracted from the wealth of the staple-growing States, as if those cities belonged to a foreign jurisdiction. We are very far from complaining of our fellow-citizens of the North for reaping the golden harvest which circumstances presented to their enterprise. They deserve commendation rather than complaint. Our purpose is to stimulate the enterprise of our own merchants; to recover, by a fair and equal competition, the advantages they have lost; and to invoke the patronage of our fellow-citizens generally, to sustain them in such a competition, and *such* a competition only. We should ourselves furnish an example of that mock patriotism of which we have spoken, and which is too often used to disguise a selfish purpose, if we were to advise our fellow-citizens to purchase from our own importing merchants, when better bargains could be obtained from our northern competitors. We only ask a decided preference when the terms are equal, and shall endeavor to show in due time, that such terms can be afforded, with a liberal profit to our importers.

We propose now to exhibit a rough estimate of the ANNUAL LOSS OF THE EXPORTING STATES BY THE INDIRECT COURSE OF THEIR FOREIGN TRADE; or, more accurately speaking, of the annual addition that would be made to their wealth, by the establishment of a direct export and import trade with foreign countries.

The excess of the exports of the Southern and South-western States beyond their imports was, in 1836, sixty millions of dollars. As the value of our imports always exceeds that of our exports, even when our importations are not excessive, by an amount equal to the

* Mr. McDuffie is here assuming the extreme doctrines of free trade and State independence.

increased value of our exports in foreign markets, beyond our custom-house assessment, and the estimated cost of importing the merchandise obtained in exchange for them, it may be safely assumed, that the northern cities imported in the year above stated seventy-two millions of foreign merchandise, which was purchased by the staples of Southern and South-western States, and fairly constituted a part of their foreign commerce. Estimating at 15 per cent. the profits of the northern merchants, and all the expenses and risks incident to the transshipments and transfers of an indirect instead of a direct route to the seaports of the Southern and South-western States, it follows that the people of these States sustained a loss of \$10,800,000 in that year, by the indirect course of their foreign commerce. By the same process of reasoning, we reach the conclusion that Georgia and South Carolina sustained a loss, in the same year, of \$3,000,000. In coming to this result, however, it is assumed that foreign merchandise can be imported as cheaply into our Southern Atlantic cities, as into the cities of the North. This assumption, however contrary to preconceived opinions, is believed to rest upon the solid foundation of undeniable facts. A great deal is habitually said about the natural advantages of New York as an importing city; and these are taken for granted, without reflection, from the mere fact of her great commercial prosperity. But what are these natural advantages?

She is, no doubt, from her position, the natural emporium of the foreign commerce of most of the New England and middle States, and by her magnificent canal, she will continue to command the trade of the North-western States, until an equally or more magnificent channel of internal commerce shall supply the whole Valley of the Mississippi with foreign merchandise, by a shorter and cheaper route, through the seaports of the South. But the question still recurs, where are her natural advantages over the cities of the South, or the Atlantic, or the Gulf of Mexico, for carrying on the foreign commerce of the staple-growing States? Does the Atlantic present a smoother surface or safer navigation between Liverpool and New York, than it does between Liverpool and Charleston or Savannah? Do merchant vessels enter the harbor of New York under more propitious gales, or ride in it with more safety, than in the harbor of Charleston? These questions are conclusively answered in the negative, by the fact, known to every merchant who is practically acquainted with the subject, that freights from Liverpool to Charleston or Savannah, are actually lower than from Liverpool to New York. This is one of the natural incidents of a direct trade. Vessels coming from Europe for cotton, would of course prefer bringing merchandise to a great cotton market, where a direct exchange could be effected, than to a city a thousand miles distant from the market, involving the necessity of a coastwise voyage, in addition to that across the Atlantic. If, then, merchandise can be transported from Liverpool to Charleston or Savannah, cheaper than to New York, what other element in the cost of importation turns the scale in favor of New York? Are house rents and the general expenses of living lower in New York than in Charleston or Savannah? House rent is notoriously much higher in New York than in any of our southern seaports; and if the concurrent testimony of travelers is to be cred-

ited, the expenses of living there, and every species of common labor, are greatly beyond what they are in Charleston or Savannah. It is thus that the alleged natural advantages of New York, so far as relates to the trade of the South, vanish, when exposed to the test of scrutiny, and resolve themselves into the mere beauties of a magnificent harbor.

But we not only deny the alleged natural advantages of the northern over the southern Atlantic cities, for carrying on the exporting and importing business of the staple-growing States, but we assert that the natural advantages are incontestably on the side of our own seaports. What is the commerce in question, divested of the factitious appendages of an artificial system, but simply an annual exchange of cotton and other staples, to the amount of some eighty millions of dollars, for merchandise imported from England, France and other foreign countries? It is perfectly plain, therefore, that the more simple and direct the operation, the less complicated, involved and mystified, the cheaper will the foreign manufacturer obtain the cotton, and the American cotton planter the merchandise for which it is exchanged.

The foreign manufacturers, and the American planters, are equally interested in establishing this system of direct exchange; and it can only be effected by bringing the foreign manufactures directly to the cities of the cotton-growing States, and making these, instead of New York, the great marts for vending foreign manufactures on the one hand, and the raw material on the other. Considering the obvious economy of this direct system of exchanges, it seems strange that the foreign manufacturers have not established their agencies, both for selling goods and purchasing cotton, in those cities in preference to others. Cotton can certainly be obtained cheaper in New Orleans, Mobile, Savannah, and Charleston, than in any northern city; and manufactures can as certainly be sold on better terms, for the consumption of the cotton-growing States, if they will bear the expenses, charges and risks of an indirect importation through New York. But no just estimate can be formed of the benefits of this proposed system, which does not embrace its tendency to supersede, not only the complex machinery of intermediate transfers and agencies, required in an indirect trade, but to a very great and salutary extent, the use and agency of money. Money is itself a very costly agent, and wherever a direct exchange of commodities, or in other words, barter, can be substituted for successive sales and purchases, the use of the sum of money that would have been required to effect these sales and purchases, is superseded by the direct exchange, and is just so much saved to the parties concerned.

In the extensive operations of foreign commerce, a very near approach can be made to this system of barter. Indeed, our great agricultural staple possesses a two-fold attribute. This is an invaluable article of consumption, and at the same time, while passing from the producer to the consumer, without any additional cost to society, it performs the functions of money, or bills of exchange. And in the disordered state of our foreign and domestic exchanges, and of our money currency, which threatens a long continuance, this inappreciable production of our favored soil and climate, promises to become a

still more important agent in the transactions of our commerce. Does not this, we confidently ask, give to the seaports of the cotton-growing States a most decided advantage over their competitors at the North? The cotton of the South and South-western States is the actual capital which sustains four-fifths of our foreign commerce. To that extent the credits obtained in Europe are obtained upon the faith of that capital alone. Shall the people of the South and South-west, with these palpable facts staring them in the face, any longer remain obnoxious to the reproach of owning and furnishing the capital of our foreign commerce, and yet permitting the people of distant communities to enjoy its golden profits? Every consideration, public and private, of patriotism and of interest, decidedly forbids it. A field of honorable competition and profitable industry is opened to our enterprise, where the public benefactor and the private trader, the patriot and the merchant, will be united in the same person. If the Medici of modern Italy, while they acquired incalculable wealth, added a princely lustre to their house, by embarking on such a field of enterprise, what citizen of our republican States would hesitate to blend, in the ensigns armorial of his family, the titles of patriot and merchant, when he is animated by the noble purpose of rescuing his country from a state of commercial dependence, as degrading to her character as it is injurious to her prosperity?

Every political community should endeavor to unite within itself, and have under its own control, as far as circumstances will permit, all the elements of national wealth. The wealth of the staple-growing States is derived almost exclusively from agricultural productions, which find their market principally in foreign countries. It is the demand of that market chiefly which gives them their value, and from that market we obtain most of the various commodities required for our consumption.

Foreign commerce, therefore, is an element of our wealth scarcely less essential than agriculture itself. Is it, then, compatible with that self-praised independence which should belong to every free State, to entrust the almost exclusive agency of conducting this great national interest to the citizens of other and distant States, who do not reside among us, and who so far from having any sympathies for us, constrain us to believe that many of them are deeply prejudiced against our civil institutions? We beg you, fellow-citizens, to give to this view of the subject that grave and deliberate consideration which it so obviously demands. We speak more from the records of our own sad experience than from the speculations of theory, when we express the opinion, that the commercial independence we are now seeking to establish is indispensable to the preservation of our political independence. Can it be believed that the enormous and oppressive impositions of the protective system would have been so long and patiently borne, if our own proper commerce had been carried on through our own cities, and by our own merchants? If these had exported our agricultural staples, and imported the manufactures for which they were exchanged, would a doubt ever have been entertained that the high duties imposed upon those manufactures, with an explicit view to their prohibition, was a burthen specifically laid upon the productions of our industry, taking just so much

from their value, compared with the value of the similar and rival productions of other countries? Would the people of the Southern and South-western States have submitted, in 1832, to the levy of 24 millions of federal revenue from sixty millions of their imports, to be carried off and disbursed in distant communities, making "our barrenness an inventory to particularize their abundance?"

Yet all this, and more, did we patiently endure for years; many of us, owing to the confusion of ideas resulting from the disjointed condition of our foreign commerce, doubting whether the burthen was not a benefit conferred upon us by a parental government. Let this fatal separation of our agriculture and our commerce, and the unnatural alliance which has been productive of such pernicious fruits, exist no longer. "It cannot come to good."

We ought never to forget, what we have too many painful proofs that others will not, that we are distinguished from our Northern confederates by peculiar domestic and civil institutions, which are inseparably identified with our great staple productions, and which we hold to be absolutely exempt from all foreign scrutiny or interference whatever. And however we may deprecate the event of a dismemberment of our confederacy, we cannot be blind to the existence of causes which make it one of the possible contingencies for which it is the part of wisdom to provide. In such an event, our foreign commerce, as now carried on, would be thrown into utter derangement. This commerce, as well as our agriculture, should be carried on by those who have an interest in the preservation of our institutions, and who, in case of a political convulsion, would seek no distant refuge or separate destiny.

Having now briefly shown the extent of our loss by the indirect course of our foreign trade, our great natural advantages for reclaiming that trade, and the strong motives by which we are invoked to enter upon the good work without faltering and without delay, we now propose to consider the obstacles, real or supposed, that stand in our way, and the means of overcoming them. The principal of these is the alleged want of capital. We have already shown that we have, in our great staples, the whole of the actual capital which sustains our foreign commerce. But this capital belongs to the planter, and the want of capital alluded to, is the money capital necessary to purchase the cotton, convert it into foreign goods, and distribute these to the retail merchants.

We are strongly inclined to the opinion that it is principally by the agency of credit, instead of money capital, and that credit resting upon our staples, that this branch of commerce has been hitherto carried on by northern merchants. So far as credit is to be used as an agent in conducting it—and we believe it is one of the most legitimate purposes of a well-regulated system of credit—it cannot be doubted that our own merchants have decided advantages over those of the North. They are nearer to the great fund by which that credit is to be ultimately redeemed, and can more easily avail themselves of the use of it. But to prevent misapprehension, we deem this the proper place to explain our views on the subject of credit, and the extent to which it can be safely and legitimately used as a cheap substitute for money.

Credit we regard as the legitimate offspring of commerce and free institutions, and a most active and salutary agent in the production of national and individual wealth. Far from being demoralizing in its tendency, it is pre-eminently the reverse, as it essentially implies mutual and extended confidence, founded upon general, known and established habits of honesty and punctuality. It can exist only in an atmosphere composed of such elements. But though we deem thus highly of credit, paradoxical as it may seem at the first view, we regard debt, in itself, as being very far from a benefit, and in the extent to which it is habitually carried in our country, a very great, and sometimes a demoralizing evil. That credit which is merely the correlative of indebtedness, is not the credit of which we have spoken. To illustrate our meaning, we could not select a case more strikingly appropriate than that of the foreign commerce now under discussion. We annually export, for example, to Europe, agricultural staples to the amount of eighty millions, and import merchandise to the same or a corresponding amount. If this were a transaction between two individuals, or even between two governments, it is obvious that no money would be required to effect the exchange, however numerous might be the separate sales and purchases into which it might be subdivided. If the European, for example, would purchase cotton to the amount of a million to-day, it would be certain that the American would have occasion to purchase that amount of merchandise to-morrow; and, instead of keeping a dead capital in money, to pay backward and forward through the extended operations of the whole year, they would make use of mutual credits, either in the form of conventional tokens, or entries upon their respective books. This would be an example of credit in its most safe and salutary form; at the same time performing the functions of money, and avoiding the evils of debt. And even as this commerce is actually carried on by the separate operations of unconnected individuals, bills of exchange, under a well-regulated system of mutual credits, might be made to perform the same function, to a much greater extent than it has been hitherto done. This branch of credit rests upon the solid foundation of property, and it can scarcely be doubted that importing merchants, residing in the staple-growing States, could organize a much more perfect system with the manufacturers of Europe, than any that has heretofore existed. They have great advantages over the Northern merchants in this respect. They are nearer to the consumers, know better the extent and nature of their wants, and can supply them by a more rapid operation, involving less delay, and requiring shorter credits from abroad. Short credits and quick returns, making a small capital, by frequent operations and moderate profits, answer the purpose of a large one moving more slowly, will be the true policy of our importing merchants. For such a system, our means of internal communication, unobstructed at all seasons, and consisting, to a great and rapidly increasing extent, of railroads, will afford facilities unknown to any other portion of the United States. But to enable our importing merchants to introduce this system of short credits in their foreign transactions, the co-operation of our planters and consumers is indispensable. A radical change must be made in their system of economy. Their habit of laying out their incomes before they get

them, and requiring a credit in all their dealing for the year, till the close of it, or until they sell their crops, even if it be longer, is the root of the evil of our whole system of credit. It must be eradicated if we would produce a great and salutary reform in our commerce and credit. If the planters require a long credit, the merchants, wholesale and retail, through whom they were supplied, would at least require an equally long credit, so far as they purchase upon credit. A large money capital becomes thus necessary for the importing merchants, that a long credit may be extended to the planters, who, so far from really requiring credit, own the whole capital which pays for our entire annual importations! This is a complete inversion of the natural order of things. The planters, producing and possessing that which constitutes almost the whole of our annual wealth, and having the means of giving credit to every other class, require credit of all others! How does this happen? The answer is easy. There is no mystery about it. It results from starting at the wrong point, and expending every year the proceeds of the coming crop, instead of the crop already made. If every planter would adopt the system of expending, in the current year, the income of the year preceding, and of making all his purchases for cash, instead of on credit, he would most palpably promote his own interest, and individually contribute his part to a general reform of the most vital importance to the whole country. Highly as we estimate credit, in the operations of commerce, we believe it may be affirmed, as a general truth, that debt is a most consuming moth to the planting interest. What practical planter can doubt, that for the credits annually obtained by himself or his neighbors, at the sales of the estates of deceased persons, and in various other modes, he pays from 15 to 20 per cent. more than the same property would cost if purchased with cash in hand. Let the suggested change in our economy, then, be no longer delayed. Every planter who adopts it will at once perceive its salutary effects upon his own comfort, independence, and prosperity; and he will have the consolation of reflecting that he is at the same time performing the duty of a patriotic citizen. We confidently believe it would dispense with one-half of the capital that would otherwise be necessary for carrying on our foreign commerce by a system of direct importation.

But whatever may be the agency of a well-regulated credit, in bringing about the proposed reform in our foreign commerce, a very considerable money capital will nevertheless be indispensable to its complete accomplishment. Nor can it be doubted that the staple-growing States have the most abundant resources for supplying this description of capital, if the planters, who are our principal capitalists, can be induced to abandon the suicidal course they have heretofore pursued, of devoting their whole income (generally by anticipation) to the purchase of negroes to produce more cotton, and appropriate even a moderate portion of it to aid in the accomplishment of this great enterprise. If every planter would take a dispassionate and comprehensive view of his own individual interest, he would perceive that the blind instinct of accumulation, which prompts him to make the crop of one year the means of increasing that of the next, is the most fatal policy he could pursue. It is a system which, in

the very nature of things, must inevitably defeat its own purposes. It will hardly be stating the case too strongly, to say that at least one-half of the incomes thus devoted to the increased production of cotton, are devoted to over production, and that they are consequently appropriated, not for the benefit of the cotton-planters themselves, but for that of the foreign and domestic consumers of their great staple. The principle of political economy laid down in the report of the Select Committee, and from which this conclusion is deduced, was known to practical men long before it was promulgated by any writer on the theory of wealth. It is founded upon the universal experience of mankind. If the supply of any article materially exceeds the effective demand, a competition is created among the sellers, which depresses the price greatly beyond a due proportion to the excess in quantity. In like manner a deficient supply creates a competition among the buyers, which increases the price in a corresponding degree. So general is this principle, that we may safely affirm that in any probable state of the demand for cotton, a small crop, if not extremely small, will produce a larger aggregate income to the cotton-planting States, than a large one. Between the extreme points where high prices check consumption on the one hand, and low prices check production on the other, there is a wide range for the operation of this principle. There is no class of producers so likely to suffer from over production as the cotton-planters. Widely dispersed over an immense territory, without the means of consultation or concert among themselves, they cannot prevent the habitual occurrence of excessive crops, unless they adopt a *system* which will of itself have a constant tendency to prevent it. The basis of that system should be the investment of at least a fair proportion of their net annual income in some other profitable pursuit, instead of investing it in land and negroes; and we believe that there is no such pursuit that promises a more abundant reward to industry and enterprise than the direct importation of foreign merchandise through our Southern seaports. Where, for example, a man of known integrity, capacity, and industry, with a moderate capital, shall be engaged or disposed to engage in the business of foreign importations, what more public-spirited and profitable appropriation can a planter make of a portion of his surplus capital than to invest it in this importing concern, as a limited co-partner, under the wise enactments recently adopted in several of the staple-growing States?

One-half of the net income of the cotton-planters, thus applied for a few years only, would furnish abundant capital for conducting our whole foreign commerce.

May we not confidently anticipate, therefore, that the planters, who are so deeply interested in the results of the great commercial reform we are attempting to effect, and whose co-operation is so indispensable to its success, will put their shoulders to the wheel at once, with a firm resolution to contribute every aid that may be required for the accomplishment of so glorious an enterprise?

Taking it for granted that all the difficulty anticipated on this score, will vanish before the public-spirited enterprise of our capitalists, we look forward with hopes equally sanguine, to the removal of the existing obstructions to the intercourse between our importing cities,

and the vast interior which they are destined to supply with the manufactures of foreign countries. In this view of the subject, too high an estimate can scarcely be placed upon a railroad communication between the Southern Atlantic cities and the navigable waters of the West. The most high-wrought visions of enthusiasm will, we doubt not, be found, in the rapid progress of events, to sink down into insignificance, when compared with the splendid realities which time will soon develop; and we confidently anticipate that ten years hence history will exhibit to us results which the most excited imagination would not now venture to predict. This magnificent scheme of internal communication will give us the command of the whole Valley of the Mississippi, in spite of the established ascendancy of the Northern cities, in the business of foreign importations and internal commerce. For whether we *scale* the interposing mountain barriers, like Hannibal, or *turn* them like his more skilful successor and rival, the *line of operations* which will carry us to the centre of this immense theatre of commercial competition, will be but half as long as that of our Northern rivals; and, what is next in importance, will be at all times unobstructed, while theirs will be closed up for several months annually, by the freezing of their rivers and canals. And though we may neither defeat the Romans in successive battles, nor drive the Austrians out of Italy by annihilating successive armies, we shall perform an achievement more glorious than either that of Hannibal or Napoleon, while we conquer and bless, by the peaceful weapons of industry and enterprise, plains incomparably more rich and extensive than those which they overran and desolated by the destructive weapons of war.

It is impossible for any enlightened and patriotic citizen of the Southern States to contemplate, without enthusiasm, the beneficial effects which will be produced on our commercial, social, and political relations, by opening a direct communication with the great Valley of the Mississippi. It will form an indissoluble bond of union between communities whose interests are closely interwoven, and will give a tenfold activity to a commerce which even the Alleghany heights have not been able altogether to prevent. The commercial cities of the South Atlantic and of the Gulf of Mexico, are undoubtedly the natural marts of the Western people for obtaining their supplies of foreign merchandise. It is there they find a market for the principal part of their own staple productions, even now, when they obtain their supplies of foreign merchandise from the Northern cities, by a complicated and expensive operation, and by a long and tedious transportation. How decidedly it would be to their interest to obtain, by a direct exchange, their foreign merchandise from the communities where they sell their domestic productions, avoiding all the expense and delay and hazard of purchasing bills on the North! And how great and overwhelming will be the preference due to this direct intercourse of exchanges, when the transportation of their merchandise shall be but half in point of distance, and one-sixth in point of time? Every merchant who understands experimentally the importance of time in the transportation of his merchandise, will at once perceive the decisive advantage which this circumstance alone will give to our Southern cities over their Northern competitors. We,

therefore, regard the completion of the line of communication, to which we have alluded, as a principal and most efficient means of establishing a system of direct importations through our Southern cities, and breaking the shackles of our commercial dependence. When it shall be completed, the commerce of foreign countries on the one hand, and of the great West on the other, will seek our Southern importing cities, by a direct line of communication, so cheap and expeditious, that both parties will find it their interest to meet there and effect their various exchanges. This great work, though itself an artificial structure, will be the means of throwing commerce into its natural channels. Entertaining these views, we cannot but strenuously urge it upon our fellow-citizens, and the political authorities of our respective States, to give every practicable aid toward its accomplishment, and that of the lateral communications which may be necessary to render its benefits more diffusive. Let us act not only efficiently, but promptly. We must seize the propitious occasion now presented to us, lest it pass away and never return.

The practicability of this railroad communication, is no longer doubtful. Indeed, it may be said that it is nearly half completed by one route, and will be more than half completed when the railroad shall have been extended, as it soon will be, from Augusta to Madison, in Georgia. Connecting this with the Charleston and Hamburg railroad, we shall have more than 240 miles of continuous railroad on a direct line to the navigable waters of the Tennessee, and conducting us to a point not more than 200 miles distant from those waters. On this subject we cannot be too deeply impressed with the necessity of sacrificing local predilections to the common good. Let that line be adopted which shall be the shortest, cheapest and best, without the slightest regard to those conflicts of local interest, which are, at best, comparatively unimportant, and perhaps purely imaginary. The great benefit which our whole interior is to derive from a direct trade, both with foreign countries and the Western States, must be reflected from our importing cities. If it causes these to grow and flourish, the whole interior, within the sphere of circulation, will participate in their prosperity, by a law which is as certain in its operation, as that which causes the blood of the animal system to flow from the heart to the extremities.

Such, fellow-citizens, are the views by which we have been actuated in calling your attention to the grave and important subject of this address. It was not to have been anticipated, that the purposes we so distinctly expressed through the report of our Select Committee, would be so greatly misapprehended as they have been by some of our fellow-citizens. Surely we may claim the privilege, and urge the expediency of carrying on our own commerce with foreign nations, directly through our own cities, and by our own merchants, without justly incurring the imputation of hostility to the Northern States of this confederacy. We are not aware that they have any prescriptive right to act for us, any more than they have to think for us. It is no hostility to their interests, but regard for our own, by which we are animated. "It is not that we love Cæsar less, but that we love Rome more." We are certainly as anxious to encourage, upon principles of reciprocity, a direct trade with the Northern States, as with

any other portion of the world. Free trade with all the world, untrammelled by legislative restrictions, is the motto inscribed on our banner. We know neither friendship nor hostility in trade. Wherever we can sell highest and buy cheapest, that is our market; making no distinction between "Trojan and Tyrian." But we are opposed to an absorbing centralism in commerce, as well as in government. Our recent experience has but too impressively admonished us of the fatal revulsions to which it is calculated to expose us. We have seen a pecuniary pressure in the city of New York throw the whole country into embarrassment, and its currency and exchanges into the utmost confusion and derangement; whereas, if the commerce of the United States, external and internal, had been fairly distributed through its natural channels, scarcely a shock would have been felt by the great body of the people. This view of the subject causes us to regret that the extensive trade we carry on with the manufacturing States of the North, exchanging our raw cotton for their various manufactures—a trade highly important to both parties—is not carried on directly between the cities of the planting and manufacturing States, but like our foreign commerce, indirectly through the city of New York. Almost the whole of our immense exchanges centre there; forcing thither, as it were, upon the heart, by something like a congestive process, the circulation of a system so vast, that it cannot be regularly and uniformly thrown out through the natural channels to the distant extremities. Periodical disorders and convulsions are the unavoidable consequence of such an unnatural and unhealthy condition of our commerce; and without pretending to speak for other portions of the Union, we confidently affirm that the people of the Southern and South-western States are invoked, by considerations of the most enlarged patriotism, as well as of an enlightened self-interest, to apply a speedy and effectual remedy. The means of achieving our commercial independence are abundant, and all the auspices are eminently encouraging. Let us embark in the enterprise with a spirit and resolution commensurate with its importance, and a splendid future will be the result and the reward of our labors.

We have recommended, by a resolution unanimously adopted, that a convention be held in the city of Augusta, on the first Monday in April next, to devise farther measures of concert and co-operation in this great undertaking. We trust and confidently anticipate that the people will meet forthwith in their primary assemblies, to select delegates to that convention, and that all the States interested will be fully represented. May Heaven smile upon their deliberations.

Art. VI.—THE NORTH-WESTERN REGION OF LOUISIANA.

THE OUACHITA VALLEY—COTTON LANDS—HILLS—SILK GROWTH—VINES—SHEEP—PARISHES OF CATAOULA, JACKSON, UNION, CLAIBORNE—ARKANSAS IN THE OUACHITA VALLEY—FLORA LOUISIANA—FORESTS—COTTON SOILS—TOBACCO—INDIGO—WHEAT—MADDER—FRUIT-TREES—SPRINGS—CYPRESS SWAMPS.

This is the fourth of a series* of papers by the Hon. H. Bry, descriptive of that most interesting and little understood region of Louisiana, commonly known as the OUACHITA. We have seldom published anything more practical and valuable. Judge Bry is a very aged citizen of that country, having resided there for thirty or forty years, and universally respected. We are delighted to learn that he will continue his Sketchings in which he could only be influenced by a high sense of public spirit, considering the disadvantage of almost entire blindness which he has now to encounter. We acknowledge our deep obligations.

THE western side of the Ouachita Valley is nearly all covered with hills or *rolling* grounds, with a few intervening prairies; there are also many tracts of good soil immediately on the banks to the foot of the hills which approach the river more or less, in several instances to the water's edge, where they appear as high bluffs, perpendicular in many places. The first vine-hills seen when ascending the river are at Harrisonburg—they extend, however, farther in a south-western direction toward Catawba lake, thence toward Red river; within that side of the valley tracts of rich bottom lands, some of which of considerable extent are found on the borders of nearly all the creeks or bayous flowing into the Ouachita from the dividing ridge, which separates the waters running into it from those which find their way into Red river.

That part of the west side of the valley situated immediately on Black river, and also on Little river, deserves particular notice, and will be remembered in the description of the lands on those two streams. The hills are not all of that inferior quality of soil implied and generally believed to compose the vine-hills; the greatest proportion is good second-rate land; the natural growth not exclusively vine, many are covered with hickory, dogwood, different kinds of oak, sassafras, sweet gum, and even black walnut and cherry. These lands will produce on an average one thousand pounds of cotton in seed per acre, and as much corn as is gathered on the same space of ground in the rich bottom lands of the Ouachita river. Although these second-rate lands are not as productive as the last named, that difference is compensated by the diminution of labor required to keep a crop in good order, vegetation not being so luxuriant there; so that a man who can attend to a crop of twenty acres of the best land, can cultivate thirty acres of inferior soil.

The highest hills are uniformly the poorest; two species of vine constitute nearly the whole of the forest which covers them—those trees acquire a great size and height in many instances; among them is often seen that kind of oak commonly called *black-jack* (*Quercus nigra*—Lin.), of which there are several varieties—they do not indicate a good soil, but are capable of yielding valuable crops—SILK might, and will, become one; the *Morus Multicaulis* grow well in

* See Commercial Review, vol. iii. 225, 324, 407.

those lands, the climate is well-adapted to the raising of silk-worms, the atmosphere being there generally dry, and of a temperature favorable to those valuable insects during the season of their existence, which on the Ouachita begins from 10th to 20th March, the average time of the hatching of the eggs, to the middle of May, when their education is terminated, and even sooner, when they have been attended to. Twenty years of experience and close observation have dictated the above statement.*

Grape vines can also be cultivated on those hills with success; and wine, no doubt, will sooner or later be made there, and become no inconsiderable addition to the resources of the country. Indigenous grape vines abound in the high as well as in the low lands of the valley; the best species and their varieties are found in the hills, some of which would not be misplaced on the best tables, and would yield good wine. The most remarkable grape (the natural growth of the valley), is the species called by the first French settlers, Raisin de Battura (*Uva riparia, Michaux*); it is found on the banks of the Ouachita, above Campden, in Arkansas, and is met with as far as within a few miles from the hot springs. That vine is an extraordinarily good bearer; the berries are of a dark blue color, and would make good wine. It grows at the water's edge, and is yearly, or nearly so, inundated when the river is at its highest; it shows but feeble signs of vegetation before the waters subside, yet is among the earliest reaching maturity.

The imported grape vines thrive well in the hills, the product of which would be superior to that obtained in the lower lands; not only because situations and exposures best adapted to that culture will be found abounding there, but also because in the bottom land the berries do not always mature regularly and together in the same bush, and are apt partially to rot even before maturity, which would necessarily impair the quality of the wine; whereas in the hills they mature more uniformly, and generally remain sound until fit to be gathered.†

The inhabitant of these hills will find another valuable resource in the raising of SHEEP; the country is well adapted to that branch of agricultural industry, which does not interfere much with the labors of the field, and would rather improve their result by the manure it would procure, so valuable in lands, the fertility of which requires stimulating; the expenses attending it will be found to be far below that incurred in the North-eastern States, where it is considerably profitable, and giving a good return for the care of the wool-grower.

The hills, which are lower than those described, and which often present the aspect of an undulating, rolling country, are generally composed of better soil, which can be called good second-rate; such as are found in the parishes of Catawba, Caldwell, Jackson, Union, part of Claiborne, and in that portion of the State of Arkansas situated in the Ouachita valley. These hills are covered, as stated before, with most of the trees and plants indigenous in the northern section of Louisiana, a nomenclature of which would be here of but little

* Judge Bry was one of the earliest cultivators of silk in Louisiana, and his efforts have been crowned with high success. We have more than once entreated him to communicate to us some of the results.—Ed.

† The reader will consult to advantage the able paper on Vines, etc., in our June No., 1847, from Hon. Joel R. Poinsett.

interest; the task is reserved for the well-informed botanist, who will, it is to be hoped, at no very distant day give to the public a complete *Flora Louisiana*.

A valuable tree, the natural growth of the northern part of the valley, cannot be passed by in silence even in this rude sketch of the country—the Osage orange (*Bois d'arc*), *Aurantia Maclura*, the fruit of which attains the size of a large orange, of a beautiful bright color, not eatable, however; its wood is of a yellow hue, hard, of a fine grain, and almost incorruptible. It affords a dye equal to the Pernambuco, and would find a ready market for that purpose if it could be exported at a reasonable cost. Excellent hedges can be, and are in fact, made with it, either by sowing the seed, or by cuttings, laid a few inches apart, in double and even treble rows; being kept low and regularly trimmed, it remains dwarf-like, branching abundantly from the ground with very sharp thorns about an inch long, and forming an insurmountable barrier against the intrusion of any kind of cattle, &c. Its glossy leaves, of a fine green, can be used as food for silk-worms; they eat them readily after their first moulting, not so well during their first age.

In addition to the resources offered by the hills of inferior soil, those of good second-rate land will reward the industrious farmer with crops of COTTON, TOBACCO, INDIGO, WHEAT, and all other small grains, (*cerealia*). Madder would also grow well there, and others which knowledge or necessity may introduce into the country.

The hills abound with springs of the purest water, particularly within a space of about eighty miles in length, from north to south, of unequal breadth. In places where there are no springs, or where they are too far from the dwelling of the settler, wells are dug, affording an ample supply of good water. These springs form gradually in their course creeks, which ultimately carry their tribute to the Ouachita river. In their clear and transparent waters fishes are seen, such as trout, perch, bass, &c., of a size to tempt the skill of the angler. The water-power of a few of the largest of those streams, has already been used for saw-mills, cotton-gins, grist-mills, &c., and many more remain, which can be employed for similar or other purposes.

FRUIT TREES thrive well on the hills, particularly the peach, which succeeds better there than in the rich bottom land, where it is more subject to rot or to be impaired by worms; they, however, can be greatly prevented by proper care and attention in the culture of that valuable addition to the comfort of the farmer.

The few PRAIRIES on the western side of the Ouachita valley, are not equal in fertility to those situated on the eastern side. The southernmost one is the Catawba Prairie, which joins the lake of that name, through which flows Little river; it is partly subject to inundation at the highest stage of water. The next met with, ascending, is Prairie des Côtes, elevated about 300 feet above the level of the Ouachita river, near which it is situated; its soil is poor, requiring manure to be made productive; is in the parish of Caldwell, at a distance of about 70 miles (by water), from Harrisonburg. No other prairies of any extent are found on the western side of the Ouachita, except a few, generally called overflown prairies; they de-

serve that appellation, being annually inundated at high water. There are, however, on that side of the valley, in Arkansas, some prairies of more productive soil; such as Mount Prairie, formerly called Prairie de Han, the name of a hunter who made it the centre of his hunting excursions about sixty years ago.

In the low lands of that side are found CYPRESS SWAMPS, in the bottoms of large creeks or bayous, forming ponds or lakes, some of which are of considerable extent; they are full during the annual time of high water, and dry, or partly so, when that season is passed. The overflow on the Ouachita river, spoken of before, is, or rather was, an immense forest of cypress, that most valuable timber of the South; they have been unsparingly cut down and rafted down to New Orleans for a market. Thousands of trees are found there, which have been cut for years, and left, when the river did not rise enough to float them out of the overflow; or, because they are of that kind of cypress which sinks, commonly called black cypress; its specific gravity being greater than that of water. Their waste is the more to be regretted, as cypress trees are not spontaneously reproduced in the swamps as other trees are in the forest. It appears that the cause of this want or failure in the reproduction is the following: Although many places in those swamps are covered with young cypresses from the seed, giving to those spots the appearance of fine green meadows, when the swamp is dry (in autumn), yet none of these will live to see another season; they are at the next high water entirely covered, and perish; few, and very few indeed, which happened to grow on the edge of the swamp, or on higher spots in the swamp, escaping total immersion, soon attain a height above the highest water-mark, which insures their existence; for although a total immersion is fatal to the plant, it is safe when its smallest part is above that risk. This opinion is founded on several years observation in the cypress swamps of Ouachita.

The climate of the western side, not differing from that of the whole valley, it will be noticed when treating of that subject in another number.

Art. VII.—CULTIVATION OF THE SUGAR-CANE.

CANE LANDS—DRAINING DITCHES—DRAINING MACHINES—CANE TRASH—BAGASSE—MANURING—WIDE AND NARROW PLANTING—EFFECTS OF FROST IN DIFFERENT LOCALITIES.

Parish of Plaquemine, La.

To J. D. B. DE BOW, Esq.,

Dear Sir—As regards the cultivation of cane, and its manufacture, I would not, unless solicited, have offered my opinions, except to strangers who may request information. To them, when a little warning may be productive of some good, I think all who have had experience should endeavor to contribute their share.

I presume there is no crop in the world that more experiments have been tried upon than in the manufacture of the cane-juice into

sugar, both by those who have had and those who have not had the advantages of a chemical and a philosophical education—the one groping in the dark, the other with all the advantages of light; yet both have in a great degree been foiled, however much improvement may have resulted. Sufficient attention has scarcely been given to the cultivation of the cane; therefore I shall, in this communication, confine myself to it.

Having for many years gone through with all the various plans of manuring, renewing, trashing, planting and working, canaling and ditching—about the most important of all—I have come to the following conclusions:

Cane is a very exhausting crop, therefore it requires that a very large return should be made of that food used by the cane in its production. To preserve the land in its first state, and to place it in a proper situation to receive this food, canals should be large, ditches frequent and deep. A plantation should always have a deep front ditch, running by the front fence from the upper to the lower line, from three to four feet wide and from three to four feet deep, to prevent the saturation water (which comes by capillary attraction, even when below the level of the land a little) from injuring the land, which, when this is not done, it very often does, and the more so when the land is sandy. If the land is a close-grained clay, then it is dry when the water is much nearer the surface; the prairie-clay lands, when one foot and a half above the water, are as dry as the sandy land at three feet, and can be plowed sooner after a heavy rain. I very often cannot plow my front lands, when five feet higher than the river, after a rain, though I can transfer my plows to my back clay lands, not two feet above the level of the lake, and do good work.

It is very fortunate for us; for were the back lands (which descend as they leave the river, in this region, about six feet for the first twelve arpents), as sandy as the front, at the extremely low level that we work many of them, they would yield nothing—keeping *always* wet. One mile from the river, I can always plow a day earlier than on the river bank, a difference of full four feet in height. Land, when at all wet, should never be plowed or worked. Of course, the deeper the ditches are the more mellow will be both soils. The mixed land is our best.

From the upper to the lower line, every acre apart, a ditch of four feet wide and from three to four or five feet deep should leave the front ditch, taking the most direct route to the back canal, it running parallel to the river behind your fields, say at twelve, fifteen or twenty acres; taking care that these leading ditches should be laid out by compass at exactly the same degree, so as to be perfectly parallel, and by this means saving short rows, known to every planter as very troublesome and unhandsome. Every half acre apart, from the front fence to the back reservoir canal, should have a ditch parallel to the river one foot deep and one and a half wide, to carry the water from the cane furrows to the leading ditch. When the leading ditches are only one acre apart, the distance from the centre of the cut to each side being only half an acre, of course the water runs rapidly off from the cane rows. When the leading ditches are two acres apart (as

they are upon most plantations), the distance being great, added to the inequalities of the land, the trash frequently stops the water from running off fast, often causing temporary ponds; on that account the cross-ditches have to be renewed with spades almost every year, taking about two or three weeks to dig them. This work prevents frequently the leading ditches from being more than one-fourth of them dug out, as time is not allowed for more, other work pressing. I have always lost a great deal of time on these ditches, which I now avoid by large leading ones at one-half the distance, which allows the cross-ditches to be more shallow, merely requiring them to run the water off the cane rows. I have latterly, in the spring, run a double horse plow up and down them, and in scraping cane cleaned them well out, and find much time saved. As to the large cross-ditches, there should not be one ditch a horse could not step over, from the river to the large back reservoir canal behind your field; that should be twenty feet wide and four and a half feet deep to five, leading (near the lower end of your place if possible) into a large and deep canal, thence to the largest bayou to be found, cutting through any small ones and seeking large ones. The small ones grow up in grass at the very time when most wanted, in September or August, when the rains are heaviest, and are then useless. The canals should be always wide, and when dug out not less than four and a half to five feet deep; for although many prefer the shallow and wide, arguing rightly, that the first two feet take off nearly all the water, yet still the canal does not fill with grass half so quickly as when it is shallow; and also, when the dry spells of weather come, then the canal becomes very low in water, and also the field-ditches, and the ground becomes itself deeper drained; and when the rains do come, which they generally do after a long dry spell of some length, it takes a great deal to saturate the earth, and a good deal to fill up the canals and ditches; which in this way also, as well as carrying off the trash, render material service.

I was induced, when I first established my place, to make several large cross-ditches, by a planter of reputation for making fine crops, because he said the layers of land, or pores, were in layers running from the river, and the cross-ditches as they intersected these layers, being deep, drained better; but this was most certainly a mistake. I have now several ditches to fill up, being just where they should not be. I have given this subject strict attention for six years, and am perfectly convinced of its fallacy. A deep canal, deep reservoir canal behind, parallel to the river, and deep leading ditches one acre apart, four feet wide, with small shallow cross-ditches, one foot trenches (so that a horse can step over easily and not stumble) to carry the water from the cane, and a deep front ditch, are all that is required to drain a place well. When the cross-ditches have to be dug out, from the width of the two acre ditches requiring it, they are followed up quickly by the double horse plows, which usually fill them up, and should a rain occur before you can get your hoes over to clean them out, they become as bad as ever. The others, every time your hoes pass, scrape well out, and they are done with. On the contrary, half-acre leading ditches of two feet and a half are too easily filled up, and are not sufficiently wide to allow of being dug

deep, which is absolutely necessary to a good yield of sugar; also causing an unlimited number of hedges, which is the only draw-back to the acre leading ditches.

But the greatest of all improvements in this way is the draining machine,* which I have seen keeping six hundred acres of land in an adjoining plantation, clear of water, the water outside of the flood-gates being twenty-four inches higher than upon the inside. The leakage and several heavy rains were evaporated, so that in three weeks the machine worked but once, having first drained the canal and ditches dry, as deep as they went; this also through a low prairie, which was under water nearly all of last year, and is now high above the water in the canal. The best method I think for draining our plantations, is to make the canals that now drain, still drain the lands adjoining the river for eight or ten acres back, which are well above the water—then the machine will not have to drain more than the back lands; for instance, thirty acres front by forty deep, give you in this region about twelve acres deep, high above water, equal to three hundred and sixty acres, and twenty more by the machine, would amount to six hundred more; this then takes a strain of nearly one-half from the engine, rendering the business easier to keep the six hundred clear, and of course with less expense.

This is our plan of an engine to work here, where plantations are cultivated as some are, and this among others, twenty acres in depth, the back lands for four or five acres of the twenty though above water high enough to cultivate, still are not high enough to prevent injury such a year as the last; this, then, had better be put under the influence of the machine. We have yet to see though, if such a season as that of last year can be mastered by this method of draining; I myself believe it can be done perfectly.

The next in importance is the renewal of lands by manure, and as an opinion is gaining ground that the cane trash is sufficient to keep land up alone, I must say that I have not found it so. Though on the old lands the cane trash may be of much use, and upon new, the ashes are more so; yet still this alone will not renew old lands, if placed there forever; and moreover the cane trash ploughed in, as it is by those who have sounded its praises, can be but of little use. Among the first to plough in the cane-trash, was myself many years ago on an adjoining plantation, where I believe it was first generally used; and the owner of which plantation has in part given it up, though more from the difficulty of plowing it in, than anything else, not finding his cane do as well, as where the ground was well plowed, and putting back the plowing so much; the leaf of the cane top catches on the point of the plow and it immediately comes out of the ground although almost rotten; and even in quite wide rows of six and seven, and sometimes eight feet, it is very difficult so to haul it, where the crop is heavy, as to get it out of the plow's way, though eight feet when properly worked does much better, and by this width, double horse plows can always plow, without injuring the cane, managing it better.

* For a full and elaborate paper upon Drainage and Draining machines on the best models, with illustrated wood-cuts, see Commercial Review for January, 1847. There is no subject of more importance to planters.—Ed.

The various plantations in this neighborhood cannot in my opinion be benefited one iota by the cane trash. They have not plowed out the middles as usual, on account of the trash impeding their plows, leaving them consequently full of weeds the whole season; and not only that, the cane trash is now, upon the last working, when in a rapid state of decomposition, exposed by being shown upon top, the last working, to the sun, rain and winds, and not having broken up the middles with large plows deeply, when the cane was small, and not injured by three or four horses; they cannot get enough dirt to cover the trash, and there it will remain on top gradually seeking its departure to the same place where fire would have sent it without all this trouble. As to its lightening the soil—and such an idea prevails to some extent, among those who have not long tried it—the lighter particles of straw, chaff, or anything of the like nature, will gradually, by merely the falling of rain and stirring about of the elements, rise to the top and the dirt will go to the bottom, being heavier. At this present moment much of it remains in the middles, not being able to get it plowed in fast, and work going on slower; and I have seen some cane lately that is very nearly destroyed from this delay occasioned in working it, grass having got the ascendancy. I have worked, for four or five successive years, cuts along-side of the same kind in cane, one the trash plowed in, the other burnt and plowed immediately—I could see no difference whatever; last year they were the same, both indifferent, as the season was bad, giving very little over a hogshead each. Not so the land out one year in peas; and that out two years in peas, on an adjoining place below me, upon which the trash has been given up, for peas and deep plowing, and on this land the cane was magnificent, and admired by all; at least one hundred and twenty acres in one body, giving over two hogsheads, and this at such a season as last year, on old cocoa ground in cultivation for twenty-five years; it is now, I will venture to affirm, equal to the finest cane in the State, and twelve years ago, this was a bed of cocoa, and yielding scarcely anything. Upon this field there are now one hundred and twenty acres of plants, seventy of second ratoons, and the balance of first ratoons, amounting to about one hundred and eighty acres, that I have no doubt will give over two thousand to twenty-two hundred pounds per acre; this has all been in cultivation twenty-five years; we formerly failed in making this land produce when I lived on that place, by attempting to renew the land by planting corn with the peas; it was of some service but cannot bring up exhausted land. Peas were then tried without the corn for two years, and that was all well turned in, the large sock ox plow of twelve or fourteen inches opened the furrows, the subsoil plow followed, the double horse followed, cleaning up the subsoil's dirt, and the result has been perfectly satisfactory; no cocoa land can stand that, the cane masters it directly. To enable a man to keep his land always in good heart, he should always in a field of six hundred acres have out in peas about two hundred and fifty, that is one hundred and twenty-five in peas alone; turn that in, and put in corn and peas, then in cane for three years, and then out again; by this process, cocoa or any other grass is kept sufficiently under, and the land will have received from the peas the nourishment taken from

it by the cane, which is its chemical food, to be got from nothing else in a like degree. Should there not be sufficient land, as many say, to throw out, how much better is it to *take* that land, and after a very few years have your place yielding two hogsheads per acre, instead of seven or eight hundred, as is quite common among many that are called old plantations. An old plantation is merely the name for a place that should by the time that it has been established be made a perfect manure bed; I have seen on these places scarcely any yield, and the bagasse which by piling on one side to rot (now thrown in the river), could, when it has rotted, in a very few years itself renew the place by covering the cane with it, as is done now on all the lands around some sugar houses, too near and convenient for hauling to be thrown out; this manure is slightly covered with dirt, and will give a good yield for two years on the oldest lands. Renewed lands will not last as long as new ground cane, and had better, if possible, be kept free from corn, setting aside some new land farthest off for that purpose to be kept so. Stable manure though is better than bagasse, but does not last so long; lime is good upon fat lands, but salt is very deleterious.

In thus far speaking of trash, I only mean to say, that when improperly worked it is worse than useless, and when properly worked, useful only to a degree, but does not do away with the absolute necessity of renewing by peas, and not working too long. The experiment has been tried on an adjacent plantation, and it has certainly deteriorated, and a very few years worked without renewing will run it down. When the former owner and excellent manager of it, my particular friend, regularly put it in peas, it was almost too rich, and his crops were very great. I plow in all my own trash, but never leave it beyond the second plowing, as I am an advocate for plowing all the middles out at the second plowing, covering up the trash at the foot of the cane early in the year; I this year found it assisted much in the latter work of the season. Cane should never, except in perfectly new land, be obstructed in growth by grass, or weeds; and it is impossible, unless you do plow out your middles early, to be without them.

There is much difference on the subject of wide and narrow planting among the planters—almost as much difference as exists among physicians on fever. Cane requires two things always—first for its growth, and then for its ripening—sun, and air. In the narrow rows it cannot have the full benefit of these, and if there is doubt, we had better give it the trial; I am myself more and more an advocate for giving the cane width, both for the former reasons, and to allow the double horse plows to work all the season, after the first breaking up of the larger plows, going deeper, and being also much easier for the horses. I planted, five years ago, eighteen acres of cane, fifteen at five feet, three at nine; I was then incredulous about this distance; the first gave me two good crops, and then the third year was small, almost nothing; I then threw it out, one year in peas, and this year planted it at nine feet, bedding in the peas, as I had done the other. The three acres I bedded, planted three canes side by side, it yielded about twelve hundred pounds the first year, became much thicker the next, with very large cane, yielding fifteen hundred pounds; this is

the fifth year, and the ratoons are as fine as new ground, and the hill is bedded up full two feet, and I have no doubt will be as good next year, as I am every year now plowing new dirt up from the middle, that has never before been used; there was always, excepting the first year, more, and riper, and larger cane upon this ground, than upon its fellow cut along-side; the trash I always bury close to the roots, and hill up on it. In this way I am planting all the front land cuts, three and a half acres deep, and covering with manure in the same rows, but would not plant any back cane (except my new lands) in this way, as the frost has from its width a greater opportunity to kill it. The front lands here are killed very late in the year; all the other plants I have bedded in fourteen feet beds, planting them at five feet apart on the beds, and nine in between the beds; this is to allow the beds to be plowed up as high as possible, and the cane trash to be hauled in the middle of the wide row, then to be buried for the first two years; by that time I shall have to plow them up for dirt, as my beds will become very high, and bury it next the roots. The last year's tops that the cane has to run, the dirt can be turned upon, on the wide furrows, and peas planted there, or planted in cane, the narrow rows on the trash bed, and covered with manure, should there be land wanting. The new land beds in the lower grounds are sixteen feet beds, the narrow rows on the beds five feet, the wide ones eleven. I have found this plan work well, and am, as quickly as I can, transferring my whole crops this way; I have no hesitation in recommending it to both new and old plantations that wish to make trash and bed-cane land, which is by far the best. Make the beds with large French sock plows, twelve or fourteen inches share, with oxen. The narrow six feet beds, to put cane in, or even eight are bad, as you cannot, where you ratoon several years, get dirt, and a bed should never be less than twelve to sixteen feet, to make a passable high bed. It is also the easiest way to turn over cane stubble; two rows of six feet in one, will always make one of twelve, and any planter who once works in this way the trash manure, will never change.

Plant cane should be put in the ground at eight feet, three good canes; at six, two and a half; at five, two, carefully picking the cane, never using tops, except from new ground heavy plants, and one year ratoons, it being better always to mattress a plenty. Planting tops is a very bad cultivation, and has run out the creole otaheita, and would the ribbon canes if persisted in. A former neighbor and myself have tried alternate rows of tops and whole cane, and found we could tell them wherever we saw them; the tops being the smallest, although from the good quality of the land, it will not frequently be perceived, yet in the end there will certainly be a falling off. The red ribbon is best for new land, the common striped for old land. I have tried frequent experiments upon turning the cane upon the side, and perceived but little difference in the cane coming up; but when the cane was sprouted, it has to be carried to the place of planting half shucked out, and is always much longer coming up; this in dry seasons makes a difference of a week or ten days in coming up. Cane should be covered lightly, and when covered by manure it should be well rotted; if by bagasse that is not, it will put back the sprouts some time; this is the best way to manure, always covering lightly

with earth to prevent it from evaporating and losing much of its nourishment. The last working it should have a hill of four inches, going in a direct line from the centre of the rows. Never hill plant cane too much; the roots should always be tolerably near the sun and air, and the ground always kept light, and until the last plowing the dirt should always be thrown away from the cane and thrown back at the same time, one furrow close to the cane only, and the others back again. The first year ratoons should have the dirt thrown away from the cane, about the fifth to the tenth of March, leaving about eight inches width where they are good, and digging them pretty well down with the hoe; if cut too close by the plow they will dry up and die, in the dry spell in the spring that we always have. As to the idea of cutting down to three inches, as formerly done by many, upon old land, you could not take a more direct way of killing the stubble. I saw, three years ago, at least one hundred acres, near to the city, killed in that way. It is necessary not to scrape the roots too closely of dirt, but the earth should be finely chopped and left on the hill to prevent its baking, on all but damp, sandy land, and they then will give support to the old stubble, from which the young shoot derives its nourishment, until its own roots take hold; this should have the dirt once thrown away, and the *first* working afterward should have loose earth given it, and the trash should be then hauled in and buried at its roots; four inches more hilling should be given this year's growth; the same work should be given to various other years' ratoons, always plowing out your middles with a three horse plow, deeply in the beginning, or perhaps with a four horse plow. The hills of both plants and ratoons should be wide and large, not narrow and peaked, as is frequently seen. The cane roots in the latter months spread out laterally very wide, and these narrow ridges force them to seek lower down for what they could not get in a higher soil above, and as the difficulty of penetration increases lower down, they do not expand and give the same nourishment.

In your November No., 1846, an assertion is made which is, I believe, contrary to the experience of almost every planter. It was, that the cane in moist places and in wet spots, is more injured by frost than in dry spots; this is most certainly an error. Whenever water lies on the ground during frost, the cane will scarcely be injured; and where the ground is much saturated with water, the cane roots are never hurt, even by a heavy frost; on the contrary, our great dread is always a dry frost. I have seen, about fifteen or sixteen years ago, in an entire field, the cane-leaves incrusting in ice, yet little damage done. The cane was not at all frozen, when every one thought it lost. I do not allude to the great sleet in 1830, I believe, but a much lighter one; I think in 1830 a great deal of our cane was destroyed in January; it was a severe frost, though from the water on the ground then, the stubble was not hurt. The water on these low spots kills the roots, not the frost. The cane nearest the river, on account of the moisture there, is very seldom killed, when back from the river it is destroyed by frost. The cane close to ditches that are filled with water you will not find much hurt, but that on a ditch-bank without water will be as much injured as cane elsewhere. There is scarcely any difference of opinion now respect-

ing the winrowing of cane in case of frost; but some think it should be tolerably well checked by frost before it is cut down. I have cut down eleven acres in October, and after all was dead on the place in February, rolled it and found it much less hurt than what was first checked by frost and then winrowed, and I have invariably found cane keep better, when winrowed perfectly uninjured. From this I conclude that winrowing should be done (when the crop cannot be taken off in proper time) tolerably early, as soon as ripe, say by the first of December, before it is at all hurt.

I will leave the manufacture of the sugar to others, who have dipped in the pans of improvement deeper than I have, and therefore are of course much more acquainted with all the new inventions, and their benefits. I have here asserted nothing that I have not tried well, and been long convinced of their advantages. I am, dear sir, yours with respect,

R. A. WILKINSON.

ART. VIII.—THE FAME OF INDIAN CORN.

“The fruitful maize, in verdant vistas rear'd
 Its spire majestic to the playful breeze,
 Spreading its loosely-waving panicles, while low
 The purple anthers bending o'er to kiss
 The silken, tassel'd styles, delight the eye
 Of watchful Ceres.”

WHILE the North and East have their MANUFACTURES, the source of inexhaustible wealth, and the South its COTTON, its SUGAR, its RICE and TOBACCO, the great producing powers of the immense western country are taxed in the culture of WHEAT and INDIAN CORN—articles bidding fair to become the new staples of American export to all the world, in quantities it is almost impossible to estimate.

What may be our future capacities of production and exportation of Indian Corn, it is almost impossible to determine. ONE THOUSAND MILLIONS of bushels could be yielded one year hence, were there a certainty for such a demand, so limitless are the fields adapted to its culture. With a demand anything like that of the past year, most of the Southern States would go into its culture with greatly more profit than cotton could possibly give. We even see this movement already.

In regard to the nutritive properties of Indian Corn, there can be little doubt. In the Southern States it constitutes a primary article of food for rich and poor, old and young, the princely planter and the meanest of his slaves. In all its various combinations, it belongs to the table as do the dishes themselves.

We are acquainted with but two analyses of Indian Corn, the one by Dr. Dana, who finds 100 lbs. of it to contain 1.31 parts of ash or incombustible matter, viz. :

Potash	0.200
Soda	0.250
Lime	0.035
Magnesia	0.128
Oxide iron	a trace
Silica, flint-sand	0.434
Sulphuric acid	0.017
Phosphoric acid	0.224
Chlorine	0.008
	<hr/>
	1.312

Professor Shepard, of Charleston, found in Southern corn but 0.95 parts of ash. In every 100 parts of this ash he traced—

Potassa	20.87
Phosphoric acid	18.80
Lime	9.72
Magnesia	4.76
	<hr/>
	55.15*

Considered as an article of food, Dr. Dana found in Indian Corn—

Starch, oil, sugar, and geine	77.09
Nitrogenous matter, albumen	12.60
Water	9.00
Salts	1.31
	<hr/>
	100.00

There has been a prejudice in other countries against the use of this crop for the food of man—an ignorant prejudice to be sure, even existing among those who find oats not unpalatable. This will be dissipated, from the efforts that are now making, and from the starving condition of many parts of Europe the past season, that have been forced to eat of it or perish.

Cobbett, a number of years ago, it will be remembered, set himself at work to introduce the corn as a staple of Great Britain; but in this, failure was inevitable, from the uncongenial climate. We regret not having at hand the able arguments he used in advocacy of this article of food.

Dr. John S. Bartlett, of New York, the able and courteous editor of the *Albion*, has furnished us with a note in answer to our queries, and several interesting pamphlets.

The first is a letter addressed by him, in 1842, to Lord Ashburton, showing the great advances in the trade of breadstuffs between the United States and Canada, and arguing that, with proper encouragement, it would reach 10 or 12 million dollars annually. He argues that America should supply England with food for several reasons. and by way of Canada.

1. Because the St. Lawrence is the national outlet for all bulky articles from that part of the North American continent.

2. Because, from the rates of duty on the frontier and in England, wheat enters the ports of Great Britain by this route under very superior advantages.

* That is to say, for every 1,000 pounds corn taken from an estate, the land is robbed of 9½ lbs. inorganic matter, whereof 5½ lbs. consist of principles of prime value to all species of crops.

3. Because, when the Welland Canal becomes enlarged, and the impediments in the St. Lawrence removed, the navigation from the upper lakes to Montreal and Quebec (the ports of shipment) will be so easy, that flour and grain may be transmitted thither, and shipped at a lower rate than at any other port on the continent.

4. Because, by this operation, Great Britain can give admission to the American products on terms more favorable and exclusive than if her ports were opened generally to all nations. And it is advantageous to offer this favor to America, because America will take British goods in exchange.

He argues that Britain requires a cheaper article of food than wheat, or any grain now in use, and considers that article to be **INDIAN CORN**. It could be laid down in any part of England at retail for \$1 the bushel of 58 lbs., being about one penny the pound. This pound of meal, boiled with four pints of water, will give 4½ lbs. product—a sufficient breakfast, with milk or sugar, for four persons, being one farthing each, or, including milk, &c., a breakfast would cost one halfpenny. Dr. Bartlett then deduces certain conclusions, the fourth being that maize possesses superiority over rye, barley, oatmeal, or potatoes; and the eleventh, that a new article of export from the United States will put forth another ligament for uniting the two countries—will enlist a large mass of the agricultural people of this country in favor of a continuance of peace, and tend to dissipate the clouds that now overshadow the pacific relations of England and America.

The second pamphlet is an English republication of the first, with an appendix, containing receipts from Mr. Skinner for preparing corn for the table. We extract from these the directions which refer to the most usual and important preparations :

CORN BREAD.—1 quart milk, 1 lb. Indian meal, 2 eggs, small lumps of butter, a little saleratus—bake in a flat pan.

JOHNNY CAKE is prepared from the corn meal scalded, and the dough rolled or pressed out to half an inch in thickness, is cooked one side at a time in front of the fire after being put on a board, sheet of tin, or plate, or any material of suitable shape.

HOE CAKE is prepared by wetting up corn meal with boiling water; is made into a cake and cooked in front of the fire, on a board or plate. It was originally put on a hoe, whence its name. This resembles the Johnny Cake.

ASH CAKE is prepared from the corn dough made as above, and is cooked as follows: make a bed by scraping away the ashes on all sides, roll the dough after being made into form between two cabbage leaves, place it in the bed, and cover up with the previously removed ashes and embers; a little practice will determine the length of time requisite for cooking. The process resembles that of roasting potatoes.

HOMMONY.—Wash a pint of grist (particles of flint-corn reduced to the size of the coarsest sand by grinding, the fine parts and husk being sifted off) in two or three waters, giving in each instance settling time. In pouring off the water, let the grits be well rubbed with the hand to separate flour. Put into a pot with one pint of water, and boil slowly for half an hour, stirring and skimming the mixture as it boils. It should come up on the table dry and gritty, and perfectly white. [We have added a suggestion or two to Mr. Skinner.—Ed.]

INDIAN MUSH.—This is made in different ways; but the easiest mode is that which resembles the making of starch or Arrow-root. Thus: put five pints of water over the fire in a pot or skillet, then take one pound of Indian meal, well sifted from the bran, and mix with a little cold water, so as to make a thick batter—add salt. As soon as the water boils, add the batter; stir it well, and keep it stirred and boiling for at least twenty minutes. It should be about the

consistence of *Hasty Pudding*, *Porridge*, or *Stir-about*, and may indeed be made in the same way. Take it up, and eat it with milk, butter, sugar, or treacle.

In this form it can easily be made and distributed to the poor from soup houses. Benevolent individuals, too, might prepare the *mush* in their own kitchens, and give it to the hungry and destitute. This is the most manageable and convenient of all the preparations of maize; it is used daily in a large number of American families, and considered a most wholesome diet. What is not used at one meal, is cut into slices, and fried or heated upon the gridiron at the next meal, and eaten with butter or treacle.

It is proper to state, that many of these receipts are differently prepared in different parts of the country; but in selecting the above, I believe I have chosen the most popular forms in use.

A proper seasoning with *salt* is necessary in all cases.

The meal should be carefully sifted from the bran; and the bran, after being scalded, is excellent food for pigs and poultry.

Of the different receipts given above, the most easily prepared are the *Mush*, the *Johnny and Hoe cakes*, and the *Asht cake*. The latter can be cooked with great facility in the turf fires common in Ireland.

In all cases the article must be well and thoroughly cooked, or it will not be nutritious or digestible.

The third pamphlet is an interesting one, published the present year. It gives us a history of Indian Corn, prepared for the American Institute.

About the derivation of the term *Maize* there is some uncertainty. It is cultivated in Mexico, U. States, West Indies, and South America; Spain, Portugal, Lombardy, and Southern Europe; in India, China, Japan, Australia, Sandwich Islands, Azores, Madeiras, Canaries, etc.

It has long been disputed whether maize were of Asiatic or American origin. Certain it was found everywhere on the discovery of this continent. In Florida, in Granada, in Peru, it was an article of common food, as well as in Mexico. Captain John Smith described it among the Virginia Indians. Maize was introduced into Europe soon after the discovery of America. Cobbett at last prepared a work upon the subject, which made some one observe he was "corn mad, having written about Indian Corn, planted Indian Corn, raised Indian Corn, made paper of Indian Corn husks, ate Indian Corn, and printed a book from Indian Corn paper."

There is a variety of Indian Corn produced in the United States, according to Mr. Browne, viz.: **THE YELLOW CORN**—Northern Yellow-flint Corn, from the Sioux Indians of Canada; King Philip; Canada Corn, or eight rows yellow; Dutton Corn; Southern big yellow Corn. **THE WHITE CORN**—Rhode Island flint; Southern big white flint; little white flint; Dutton white flint; early Canadian white flint; Tuscarora; white flour Corn; Virginia white gourd seed; early sweet or sugar Corn, or Pappoon Corn. There are also blood-red corns, &c., &c.

We shall conclude our present discursive paper with a few extracts from the remarkable poem, in three cantos, written in 1793, by Joel Barlow, Minister Plenipotentiary to France.

The poet invokes the muse to aid him in his high flight of fancy :

Assist me first with pious toil to trace,
Through wrecks of time thy lineage and thy race;
Declare what lovely squaw, in days of yore
(Ere great Columbus sought thy native shore),

First gave thee to the world; the works of fame
 Have lived indeed, but liv'd without a name.
 Some tawny Ceres, goddess of her days,
 First learn'd with stones to crack the well-dry'd maize,
 Through the rough sieve to shake the golden show'r,
 In boiling water stir the yellow flour—
 The yellow flour, bestrew'd and stirr'd with haste,
 Swells in the flood, and thickens to a paste,
 Then puffs and wallops, rises to the brim,
 Drinks the dry knobs that on the surface swim;
 The knobs at last the busy ladle breaks,
 And the whole mass its true consistence takes.

Having received the desired inspiration, he seizes upon his subject:

Thy name is *Hasty Pudding!* thus our sires,
 Were wont to greet thee fuming from their fires;
 And while they argued in thy just defense
 With logic clear they thus explain'd the sense:—
 "In *haste* the boiling cauldron o'er the blaze,
 Receives and cooks the ready-powdered maize;
 In *haste* 'tis served, and then in equal *haste*,
 With cooling milk, we make the sweet repast,
 No carving to be done, no knife to grate
 The tender ear, and wound the stony plate,
 But the smooth spoon, just fitted to the lip,
 And taught with art the yielding mass to dip,
 By frequent journeys to the bowl well stor'd
 Performs the hasty honors of the board."

Now follows the whole process of cultivating corn, which is beautifully seen from the incipient procedure of breaking in the ground, through all the nice attendance. We see the fields waving before us in luxurious splendor, with their silken fringes and tassels:

When now the ox obedient to thy call,
 Repays the loan that fill'd the winter stall,
 Pursue his traces o'er the furrow'd plain,
 And plant in measur'd hills the golden grain.
 But when the tender germ begins to shoot,
 And the green spire declares the sprouting root,
 Then guard your nursling from each greedy foe,
 Th' insidious worm, the all-devouring crow.
 A little ashes, sprinkled round the spire,
 Soon steep'd in rain, will bid the worm retire:
 The feather'd robber with his hungry maw
 Swift flies the field before your man of straw,
 A frightful image, such as school-boys bring
 When met to burn the pope, or hang the king.

Thrice in the season, through each verdant row
 Wield the strong plough-share and the faithful hoe—
 The faithful hoe, a double task that takes,
 To till the summer corn, and roast the winter cakes.

Slow springs the blade, while check'd by chilling rains,
 Ere yet the sun the seat of Cancer gains;
 But when his fiercest fires emblaze the land,
 Then start the juices, then the roots expand;
 Then, like a column of Corinthian mould,
 The stalk struts upward, and the leaves unfold;
 The bushy branches all the ridges fill,
 Entwine their arms, and kiss from hill to bill

Here cease to vex them, all your cares are done ;
 Leave the last labors to the parent sun ;
 Beneath his genial smiles the well-dress'd field,
 When autumn calls, a plenteous crop shall yield.

Now the strong foliage bears the standards high,
 And shoots the tall top-gallants to the sky ;
 The suckling ears their silky fringes bend,
 And pregnant grown, their swelling coats distend ;
 The loaded stalk, while still the burden grows,
 O'erhangs the space that runs between the rows ;
 High as a hop-field waves the silent grove,
 A safe retreat for little thefts of love,
 When the pledg'd roasting-ears invite the maid,
 To meet her swain beneath the new-form'd shade
 His gen'rous hand unloads the cumbrous hill,
 And the green spoils her ready basket fill ;
 Small compensation for the two-fold bliss,
 The promis'd wedding and the present kiss.

Slight depredations these : but now the moon
 Calls from his hollow tree the sly racoon ;
 And while by night he bears his prize away,
 The bolder squirrel labors through the day.
 Both thieves alike, but provident of time,
 A virtue, rare, that almost hides their crime.
 Then let them steal the little stores they can,
 And fill their gran'ries from the toils of man ;
 We've one advantage where they take no part—
 With all their wiles they ne'er have found the art
 To boil the Hasty Pudding ; here we shine
 Superior far to tenants of the pine ;
 This envied boon to man shall still belong,
 Unshar'd by them in substance or in song.

At last the closing season browns the plain,
 And ripe October gathers in the grain ;
 Deep loaded carts the spacious corn-house fill,
 The sack distended marches to the mill
 The lab'ring mill beneath the burden groans,
 And show'rs the future pudding from the stones ;
 Till the glad house-wife greets the powder'd gold,
 And the new crop exterminates the old.

The last canto hurries us into the midst of the harvest season. This is so beautiful and characteristic, and brings back to our memory so vividly many a dear scene of the past, that we must even insert it entire. We have been at these huskings where the sounds of merriment and cheer rung for many an hour. Nothing could be livelier and more spirited. It is on occasions like this that much of the literature of our Southern negroes is engendered ; we mean their songs, which have no little merit at times—at least, they are unique, original, and by no means unmelodious.

THE HUSKING.

The days grow short ; but though the falling sun
 To the glad swain proclaims his day's work done,
 Night's pleasing shades his various tasks prolong,
 And yield new subjects to my various song.
 For now the corn-house fill'd, the harvest home,
 Th' invited neighbors to the husking come ;
 A frolick scene, where work, and mirth, and play,
 Unite their charms, to chase the hours away.

Where the huge heap lies centred in the hall,
 The lamp suspended from the cheerful wall,
 Brown corn-fed nymphs, and strong hard-handed beaux
 Alternate rang'd, extend in circling rows,
 Assume their seats, the solid mass attack;
 The dry husks rustle, and the corn-cobs crack
 The song, the laugh, alternate notes resound,
 And the sweet cider trips in silence round.

The laws of husking ev'ry wight can tell;
 And sure no laws he ever keeps so well;
 For each red ear a gen'ral kiss he gains,
 With each smut ear she smuts the luckless swains;
 But when to some sweet maid a prize is cast,
 Red as her lips, and taper as her waist,
 She walks around, and culls one favor'd bean,
 Who leaps, the luscious tribute to bestow.
 Various the sports, as are the wits and brains
 Of well-pleas'd lasses and contending swains;
 Till the vast mound of corn is swept away,
 And he that gets the last ear, wins the day.

Meanwhile the house-wife urges all her care,
 The well-earned feast to hasten and prepare.
 The sifted meal already waits her hand,
 The milk is strain'd, the bowls in order stand,
 The fire flames high; and, as a pool (that takes
 The headlong stream that o'er the mill-dam breaks)
 Foams, roars and rages with incessant toils,
 So the vexed cauldron rages, roars and boils.

First, with clean salt she seasons all the food,
 Then stews the flour and thickens all the flood
 Long o'er the sim'ring fire she lets it stand;
 To stir it well demands a stronger hand;
 The husband takes his turn; and round and round
 The ladle flies; at last the toil is crown'd;
 When to the board the thronging huskers pour,
 And take their seats as at the corn before.

I leave them to their feast. There still belong
 More copious matters to my faithful song,
 For rules there are, tho' ne'er unfolded yet,
 Nice rules and wise, how pudding should be ate.

Some with molasses line the luscious treat,
 And mix, like bards, the useful with the sweet.
 A wholesome dish, and well deserving praise,
 A great resource in those bleak wintry days,
 When the chill'd earth lies buried deep in snow,
 And raging Boreas drives the shiv'ring cow.

Blest cow! thy praise shall still my notes employ,
 Great source of health, the only source of joy!
 How oft thy teats these pious hands have press'd!
 How oft thy bounties prove my only feast!
 How oft I've fed thee with my fav'rite grain!
 And roar'd, like thee, to find thy children slain!

Ye swains who know her various worth to prize,
 Ah! house her well from winter's angry skies.
 Potatoes, pumpkins, should her sadness cheer,
 Corn from your crib, and mashes from your beer;
 When spring returns she'll well acquit the loan,
 And nurse at once your infants and her own.

Milk, then, with pudding, I should always choose;
 To this in future I confine my muse,
 Till she in haste some future hints unfold,
 Well for the young, nor useless to the old.
 First in your bowl the milk abundant take,
 Then drop with care along the silver lake
 Your flakes of pudding; these at first will hide
 Their little bulk beneath the swelling tide;
 But when their growing mass no more can sink,
 When the soft island looms above the brink,
 Then check your hand; you've got the portion's due,
 So taught our sires, and what they taught is true.

There is a choice in spoons. Though small appear
 The nice distinction, yet to me 'tis clear,
 The deep-bowl'd Gallic spoon, contriv'd to scoop
 In ample draughts the thin diluted soup,
 Performs not well in those substantial things,
 Whose mass adhesive to the metal clings;
 Where the strong labial muscles must embrace,
 The gentle curve, and sweep the hollow space
 With ease to enter and discharge the freight,
 A bowl less concave but still more dilate,
 Becomes the pudding best. The shape, the size,
 A secret rests unknown to vulgar eyes;
 Experienc'd feeders can alone impart
 A rule so much above the lore of art.
 These tuneful lips, that thousand spoons have tried,
 With just precision could the point decide,
 Though not in song; the muse but poorly shines
 In cones and cubes, and geometric lines.
 Yet the true form, as near as she can tell,
 Is that small section of a goose egg-shell,
 Which in two equal portions shall divide
 The distance from the centre to the side.

Fear not to slaver; 'tis no deadly sin,
 Like the free Frenchman, from your joyous chin
 Suspend the ready napkin; or, like me,
 Poise with one hand your bowl upon your knee;
 Just in the zenith your wise head project,
 Your full spoon, rising in a line direct,
 Bold as a bucket, heeds no drops that fall,
 The wide-mouth'd bowl will surely catch them all.

Art. IX.—FLORIDA.

ITS CLIMATE, SOIL, PRODUCTS, TEMPERATURE, HEALTH, ETC., ETC.

In the last number of our Commercial Review the history of this interesting region was traced from the earliest period to the present time. So far as they could be obtained, we published the statistics of its progress and condition. Having to this time been disappointed in receiving an elaborate paper from some of its leading citizens who have promised it, though in daily expectation, we have concluded to present the one before us which emanates from a source deserving of high regard. Full, practical, minute and reliable information about Florida, its climate, soil, resources, population, etc., is just at this

time very much required, and will, we trust, be afforded us at an early day.

It will be remembered that in 1838, Dr. Henry Perrine, U. S. consul at Campeachy, addressed a number of interesting letters to government relating to the various species of tropical plants of great value, capable of being domesticated and yielding abundant returns in Florida. Some of them were addressed to the committee of agriculture in Congress. Dr. Perrine urged the establishment of a nursery for these plants in the peninsula of Florida, and argued enthusiastically for the ultimate effects upon that territory and the Union. A favorable report upon his memorial was prepared by Senator Lynn, of Missouri.

Without pausing to discuss the matters involved in this transaction, it is sufficient to note some of the points that were chiefly urged. It was stated that the tenderest plants of the tropics would flourish in Florida; that this unimproved territory will sustain productive plants for food, medicine, and art, which grow in air, water, on rocks or trees, in marshes or moving sands; that the tropical regions may be improved for all species of vegetation. Of plants to be introduced, is mentioned caoutchouc, or Indian rubber; the cochineal nourishing species of prickly pear and others; the fibrous agaves, yielding sisal hemp; tea plant, which will thrive in the arid soils of the tropics, and might be produced profitably at one half the rates levied on foreign teas; mulberry tree, of Manilla; indigo, already a wild plant; the grape vine of Campeachy, which on the poorest calcareous soils of Florida might yield fruit to ripen in every month of every year; coffee, tobacco, sugar, black pepper, pimento, cloves, cinnamon, ginger, pine-apple, medicinal roots, etc., etc. Whatever may be thought of Dr. Perrine's view in relation to Florida, whether wild and impracticable, or capable of being at all carried out, one thing is very certain, his letters are most interesting and full of material. We present his tables of temperature and rain, from many observations:

TEMPERATURE.

	Key West. Mean.	Havana. Mean.		Key West. Mean.	Havana. Mean.
January	69	71	July	83	80
February	70	75	August	81	80
March	73	77	September	77	79
April	75	78	October	74	75
May	79	81	November	70	73
June	81	81			

January 28-29, 1836, coldest night ever known, thermometer falls to 44 degrees; the greatest heat is 90 degrees.

FALL OF RAIN.

	New Orleans.	Key West.
Four years	47.35	31.389

But we give the paper promised in the opening paragraph:

The climate of East Florida will be considered in this place, only in so far as relates to the vegetable productions. In this respect it has been spoken of in extravagant terms, from which it might be supposed that every kind of vegetable growth, indigenous to all regions between Hudson's Bay and Cape Horn, flourish alike, side by

side, spontaneously. But the climate has been praised, in an especial manner, as proper for all the tropical staples and fruits. A Mr. Carver is quoted by one writer, as saying: "So mild is the winter that the most delicate vegetables and plants of the Carribee islands experience not the least injury from that season;" and a Mr. William Stock is made to say, "This country will produce all the tropical plants and staples by the side of those belonging to a northern climate." It is proposed to notice the winter climate of East Florida.

In the year 1766, John Bartram states, that "on the 3d of January, being on the St. John's river, north of Lake George, the thermometer was at 28° wind N. W., the ground was frozen an inch thick on the banks; this was the fatal night that destroyed the lime, citron, and banana trees in St. Augustine." Williams says: "In 1774, there was a snow storm, which extended over most of the territory. In February, 1822, the cold was so intense in West Florida, that all the fruit trees were killed to the ground; but this season was comparatively mild in East Florida. On the contrary, East Florida suffered exceedingly from a violent frost on the 6th of April, 1828; on this bitter night crops of cotton, corn, and fruits were all destroyed. The thermometer at Six Mile Creek, on the St. John's, stood at 27°, and the ice made an inch thick. The crops of corn and cotton were cut off as far south as Tomoko. During the month of February, 1835, East Florida was visited by a frost, much more severe than any before experienced. A severe north-west wind blew ten days in succession, but more violent for about three days; during this period the mercury sank seven degrees below zero. The St. John's river was frozen several rods from the shore, and all kinds of fruit trees were killed to the ground; many of them never started again, even from the roots. Frost is felt at some seasons in every part of Florida, though not usually below latitude 27°." Vignoles says: "The nipping of the white frost is occasionally felt so far as the extreme capes of Florida, though not an annual visitant." Below the lowest degrees, in the years mentioned, at several points on the peninsula are given. In the years omitted, no observations have been published:

St. Augustine, lat. 29° 50'; 1826, 33°; 1828, 30°; 1830, 30°; 1841, 24°. Pilatka, lat. 29° 38'; 1840, 28°; 1841, 27°. Fort King, lat. 29° 12'; 1841, 22°. Farry gives the annual range of the thermometer at Fort King, as follows: max. 105°, min. 27°, range 78°. Tampa, lat. 27° 48'; 1826, 28°; 1827, 26°; 1828, 40°; 1829, 28°; 1830, 30°; 1840, 38°; 1841, 30°. Sarrasota, lat. 27° 20'; February, 1841, 30°.

From the above, it is evident that the coast of Florida has a much milder climate than the interior; for Fort King, which is more than half a degree south of St. Augustine, has nevertheless a much more severe climate, as will be still farther shown. In February, 1841, the frost was so severe on Pease Creek, in lat. 28°, for several nights in succession, that thick ice was formed, and the horses' hoofs clattered on the frozen ground as loudly as at the North in the severe cold of November. No observations were made with the thermometer. This frost must have extended several miles lower, or at least to lat. 27°, as it is seen that on the western coast (in a milder cli-

mate), at Sarrosota (lat. $27^{\circ} 20'$), the thermometer was down to 30° . The Atlantic coast has also a much milder winter climate than the Gulf coast, as is evident from the following table, which shows the mean annual range of temperature at the permanent military stations in East Florida :

	Max.	Min.	Range.
St. Augustine, Atlantic, lat. $29^{\circ} 50'$	92°	39°	53°
Fort King (interior), lat. $29^{\circ} 19'$	105	27	78
Tampa, Gulf, lat. $27^{\circ} 48'$	92	35	57

It appears, then, that the winter climate of the coast on the Gulf is more severe than that of the Atlantic coast, and that of the interior is more severe than either. The eastern coast is warmer in winter than the interior, in consequence, no doubt, of the Gulf stream passing northward through the straits of Florida. But whatever the cause, it is certain that the cold of the interior is much more severe than on the coast, and that the winter weather is colder on the western than on the eastern side of the peninsula. Scarcely a year passes at Tampa Bay without ice, and the bodies of the orange trees are all seared from the effects of the cold winds. I trust it has been made apparent that tropical fruits and staples will not flourish above lat. 27° , notwithstanding the stories of Mr. Carver, and the reports floating up and down in the writings of travelers and speculators ; and Williams makes the parallel of 27° the limit for tropical productions.

It is only below the 27^{th} degree of latitude (constituting South Florida "tropical" is a misnomer designed to mislead, for no part of the territory is within the tropics), if at all, that the tropical fruits can be raised in any degree of perfection. But a small part of South Florida is *entirely* exempt from frosts, except it be the southernmost islands and points, which are with very little exception, both dry and barren. The guava, plantain, banana, lemon, lime, citron, date, mango, cocoa, &c., can be raised in South Florida, and perhaps the pine-apple and some other West India fruits. But nearly the whole of South Florida is occupied by the everglades. "South of latitude 28° ," says a recent writer, "Florida consists of a vast morass, called the everglades." "That part of the Peninsula of East Florida," says Williams, "that lies south of the 28^{th} degree of latitude, declines toward the centre in form of a dish, the border of which is raised toward the coast. This vast basin is filled with marshes, wet savannas, intersected by extensive lakes and lagoons, forming a labyrinth, which, taken together, is called the everglades." Behind Cape Florida it approaches within twelve miles of the coast, it then passes round to near Cape Sable, and up the western coast. All this country (not including the eastern coast of the peninsula), containing the district allotted to the Indians, has been officially pronounced by Gen. Worth as of no value ; and the only part of the narrow belt of land surrounding the everglades, which is of the least consequence, is that on the eastern coast. On the narrow strip surrounding the everglades, allowing for the present that the southern and western portions of it are of some value, must be raised all the tropical productions of Florida. It can be seen by a glance at the map that the quantity of cultivatable land below the limit of black frost is small indeed. It is said that the everglades can be drained. It matters not ; for if they

are, they will be as worthless as before, on account of their insalubrity.

Some space will now be devoted to the general productions of East Florida.

SUGAR, where the quality of the land will allow of its cultivation, is undoubtedly the most certain crop among the staples. Florida is superior to Louisiana for the sugar cultivation in this respect—the season is longer, which allows the cane to ripen higher before the occurrence of frost. Vignoles says: “It is perhaps the fact that the exhausting vegetation of this article may not allow a profitable planting of it upon the same lands, more than two or three years in succession; yet, as it may be raised on the pine lands, a change of fields is easy, and attended with but little comparative trouble; and by suffering the lands to lie fallow, or by a judicious succession of crops, it will not require a very extensive tract to establish a sugar plantation. Perhaps it may be thought that Florida presents but little to tempt the large sugar planter: granted, but it is undoubted that if the culture of the cane should be adopted on a small scale, the labor would be amply repaid.” The rich swamps and hammocks, after having been properly prepared, will doubtless raise sugar crops in succession, but the pine-lands will soon become exhausted and worthless, unless highly manured. The plantations of Generals Clinch and M’Intosh, near Fort Drane, which were never considered of inferior soil compared with Florida land in general, were exhausted at the time they were abandoned. Williams says: “All our *good lands* produce sugar-cane as well as any other crop, and it is more certain and more valuable, in most places. Besides, there can be no danger of glutting the market with sugar.” But he is in great error when he says that cane is cultivated with more ease than corn, because it does not require so much hoeing.

COTTON.—So many errors have been propagated in relation to the culture of this article, especially the Sea Island variety, that a more extended notice will be taken of it than would otherwise be necessary. Several months since, a writer in the *National Intelligencer*, with the signature of “A Physician,” made use of the following language; “It is now established beyond a doubt, that the Sea Island, or long staple cotton (the production of which has heretofore been confined to a few small islands in South Carolina and Georgia), will grow luxuriantly even in the very centre of the peninsula. A superior quality of this article has been produced on the Suwannee, and in the very centre of Alachua, as well as on the Eastern coast. This important fact is no doubt attributable to the almost *irregular* position of East Florida. The importance which the production of this valuable staple must give to East Florida, will be duly estimated when it is considered that it can be cultivated there without the fear of *competition*. The few islands in South Carolina and Georgia which yield this staple, are now so nearly worn out, that their average product per acre does not exceed one hundred and fifty pounds, and there is no other portion of the United States, with the exception of East Florida, where it *can* be produced. Neither can it be produced in Texas, in Egypt, or in India; and it is more than probable that there is in no part of the world a country of much extent, so well adapted,

both in climate and soil, to the production of this staple, as East Florida. It is a fortunate circumstance, too, that the northern portion of East Florida, which is the least adapted to the production of tropical staples, is better suited than any other part of the territory to the cultivation of Sea Island Cotton." He says, in another place: "If we cultivate an acre of *second rate prime land* in Sea Island Cotton (a staple which grows everywhere in East Florida), the average product will be three hundred pounds, which, at the average price of twenty-five cents, will amount to seventy-five dollars, which exceeds the yield of South Carolina in this, its most valuable staple."

I deny that Sea Island Cotton can be raised in the interior of East Florida at all. Now for my authority. Williams, the eulogist of Florida, whose testimony is therefore the more valuable for my purpose, says: "Sea Island Cotton is peculiarly adapted to our sea-coast and islands, and although good crops may sometimes be made at some distance in the country, yet they are uncertain, and always degenerate in proportion to their distance from the sea. Our islands and coast are made up of the debris of sea shells, a small portion of clay and vegetable matter, with a large portion of silicious sand. The larger the proportion of vegetable matter and clay, the larger is usually the crop of cotton, but the less of these matters contained in the soil, the finer and more glossy will be the staple of the cotton, and no kind of manure has been found that will increase the quantity, without, at the same time, injuring the quality of the cotton, except it be sea-weeds, or marsh mud." The best planters do not average more than three acres of cotton to the hand. The best lands will produce, in good seasons, one bale to the hand, but in general half that quantity can be depended on. The value of this crop depends, more than any other, on the manner in which it is handled and put up for market. The crop is liable to many accidents. The caterpillar sometimes destroys whole fields in one night. The red bug pierces the pod and discolors the cotton, and heavy winds destroy the pods; besides, it is a tedious crop to clear and prepare for market. It ought never to be cultivated on lands that will produce sugar or tobacco, but to be confined to light hammock lands within the range of the sea breezes. The Mexican, a green-seed cotton, is still cultivated in the country. High oak land is the only kind which produces this crop to advantage, and at the price now given, it does not, in Florida, pay the expense of cultivation.

SEA ISLAND COTTON can perhaps be cultivated on a few of the Florida islands, and on a narrow strip of land on the Eastern coast, about Indian river. This remains to be determined. It cannot be raised in the other parts of the territory, and least of all in the northern portions of East Florida, which are the least adapted to the production of Florida staples. It cannot be raised in the very centre of the Peninsula. In the cotton market, Florida and Upland cottons are always classed alike, and as bringing about the same price. I do not believe that the "*second rate pine lands*" will produce "an average of three hundred pounds" of any kind of cotton "per acre." Williams says that "the best lands will produce, in good seasons, one bale to the hand, but in general, one-half that quantity can be depended upon," and that "the best planters do not average more than

three acres to the hand." From the "best land," then, in "good seasons," according to Williams, one acre will produce 150 pounds (allowing the bale to contain 450 pounds), which, at 9 cents per lb. (a high price), amounts to \$13 50. Allowing 600 pounds to the bale, the product of one acre (200 pounds) is \$18. Even if we allow the whole 300 pounds per acre, the product will amount to only \$27, and at 8 cents (a fair price, a great one though), to only \$24, instead of \$75, as set forth by "A Physician." Any one may see by the price current for the last two or three years, that Florida cottons have brought only 7½ and 8 cents. So much for Florida Sea Island Cotton, which cannot be raised in the interior, and on but a small portion of the coast, if at all.*

COTTON AND THE COTTON TRADE AND MANUFACTURE.

We have been endeavoring to collect everything that could be obtained upon these subjects, and during our stay at the North shall examine with much care the various manufacturing communities which have grown up and are extending in wealth.

The Southern States would not seem to be as yet fully alive to the subject. Georgia has, however, evidenced an enterprise of late in this particular, which must soon put her far ahead of her sister States unless they imitate her example. The city of Charleston promises some good results; a large manufacturing company having been formed, all the stock of which we learn was readily taken. We have already referred to Alabama, and given the promised sketch of its thriving town, Prattsville. Tables showing the statistics of all these States are in preparation, and will soon be published by us. Those for Georgia were kindly furnished by Prof. McCay, of the University, but are at this moment mislaid. We are greatly indebted for his kindness.

In relation to cotton culture the following letter from a leading gentleman in Tennessee, John Pope, Esq., has been politely furnished us.

CULTURE OF COTTON.

To J. D. B. De Bow, Esq.:

There is probably no subject of practical agriculture that will be found on investigation to challenge in the experience of those engaged in its culture such varied and contradictory results as cotton. There is less perceived uniformity of practice observed in the culture of the cotton plant, than in that of any other agricultural staple—and yet with all this diversity of cultivating process, there is no other staple that generally yields such profitable results, exhibiting at the same time an extraordinary adaptation to every variety of soil and climate. So that in your inquiries on the subject, any peculiar mode of culture should not constitute so important an item of investigation, as the ascertainment, if possible, by an appeal to the researches of intelligent planters, of the origin of the whole tribe of destructive insects that habitually infest the cotton crop—I allude particularly to the spring insects called *Ace*, that are found to prevail more fatally and in-

* The statements above made, in relation to Sea Island cotton, have been contested by a gentleman in Leon county, Fla., who asserts that in Hamilton and Columbia counties up to the Georgia line, the planters raise Sea Island cotton exclusively, and have done so for eight or ten years. Some of these cottons sold in the Charleston market at 35 cents, Uplands ranging about 15 or 16 cents. Six acres in Leon county yielded 1,098 lbs. clean cotton, at 20 cents, when Uplands were only 10. Thirty acres yielded 3,660 lbs. of white cotton—500 lbs. stained, which was roller-ginned, and sold in Liverpool for 11½d. 200 acres promised a crop of 35,000 to 40,000 lbs. clean cotton, but from a bad season, caterpillars, &c., yielded but 14,422 lbs., which sold in Liverpool at 13d. to 14d. The force that raised this cotton produced, in addition, 3,000 bushels corn, 10 acres sweet potatoes, 10 bbls. sugar, 500 gallons syrup, several hundred bushels turnips, 11,557 lbs. pork, and 120 lambs for market. Sea Island cotton has also been raised in Jackson, Jefferson, Madison, Gadsden and Duval counties.—Ed.

variably, irrespective of climate, than any other enemy to the plant. And I venture to assert, that there is no problem in the *modus operandi* of the crop, that will elicit more perplexing controversy. For the last few years I have devoted much anxious and minute attention to the prevalence of this class of insects, with the view to satisfy myself about their origin, and consequently to be enabled to devise some preventive to their recurrence. The result of my observations enables me to assert that no kind of weather nor peculiarity of locality is any guaranty against their existence—and that sudden vicissitudes in the season, a few weeks after the plant gets up, are most favorable to their production. It may also be asserted that they are inherently peculiar to the cotton crop, inasmuch as they are never seen invading any other vegetable growth. There are two opinions most current among the planters as to their origin. The one attributes their existence to some flying insect, that deposits the *larvæ* on the under side of the leaf of the plant—the other holds that famous little model of industry, the ant, responsible for the production of this mischievous nuisance, inasmuch as they are always found existing contemporaneously. I am much disposed to acknowledge myself the advocate of the latter opinion, from the fact that though I have always observed them existing together, I have never detected the ant playing the part of depredator on the lice. An entomological experiment, exposing the procreation of the ant, could at once settle the question. But let either one of these theories be verified by experiment, yet the important desideratum is presented, what remedy or prevention can be devised for this mischievous enemy to our cotton crops? It has recently occurred to me, that inasmuch as plaster of paris has proved a specific for the Hessian fly in the wheat crop of the North, may it not also prove a valuable remedy in the hands of the cotton planters, either by rubbing the seed previously to planting with it, or by using it as a top-dressing to the plant, at the time it is most liable to the ravages of this insect. At any rate, I shall make an experimental test of it in my crop the next season. I would call your attention to another somewhat novel opinion recently advanced on intelligent and practical authority, that the cotton plant is destined to a decided, though gradual improvement in its productive qualities, as it recedes from what has hitherto been considered its favorite climate to a higher latitude—an opinion that is doubtless based on the fact that the cotton crop north of 34 degrees is comparatively exempt from the *desolating* ravages of the worm and caterpillar, so prevalent farther south—and should time continue to verify this opinion, an auspicious influence on the cotton market must necessarily follow, from the decreased production of the article.

THE COTTON CATERPILLAR.

From Philip Winfree, Esq., Mulberry Creek, Iberville, La.

To J. D. B. De Bow, Esq.

I have read with attention Dr. Gorham's essay on the cotton worm. It might be considered presumptuous in me to dispute any of his statements, from his superior scientific knowledge; but my having been a practical cotton planter for the last fifty years, and one not totally devoid of observation, I hope will be an excuse with you, with him, and with the public, for correcting a few errors that he has fallen into.

We had the worms in great abundance last year, and consequently the doctor thinks we shall have none this year, or if any, not before cotton leaves have attained their full maturity ("greatest maturity" are his words), and then goes on to confute some erroneous writings on the subject. Now, like the Yellow Fever, they would be more likely to return, if no occurrence happened, if no remedy was applied, or means taken to avert both the one and the other. The same local causes which induced the yellow fever one year, would continue to induce it the next, if not removed or rendered innocuous by some means, either natural or artificial. So would the chenille (the instinctive name of the caterpillar under consideration). I agree with the doctor that we are not likely to suffer by them this year, but from very different causes to those he mentions. It is to the *ants* that we are indebted for making any cotton in this country; they are the great enemies to the chenille as well as other insects. The assistance from the Ichneumon is very feeble. Whenever the chenille or other caterpillars appear in large numbers, the ants increase in ratio, from the quantity of food afforded them by these insects. On the first year's appearance of the worms, the ants are thin, but few in number; but the next year they are very numerous, and compose an *army* too strong for the Doctor's *army* worm. These insects always begin their depredations in small numbers, and when they are not checked or destroyed, go through all their different metamorphoses in twenty-eight days or one lunar month, each fly or moth depositing eggs, which produce fifteen hundred to three thousand worms, as was completely verified and proved in my presence, about fifty years ago, by an intimate friend of mine. The doctor is wrong in his statement, that 1820 was the first year of the appearance of this insect in Louisiana. I came to the parish of Iberville in 1806, and the cotton fields had been laid waste by them a year or two before. What forcibly impresses this upon my mind is that the inhabitants had applied to their priest, Father St. Pierre, for holy water, to drive them away; and, I must add, in justice to Mr. St.

Pierre, that he told them it would have no effect, but gave them the holy water at their earnest request.

Doctor Gorham thinks we receive the stock from Mexico or South America. If this were the case, it must be in the moth or fly state that the chrysalis is fixed and immovable, and, according to his own showing, the army are easily arrested in their progress, and never reach any existence; the fly, too, it has been noted by hundreds of persons, can only keep on its wing for a few yards, but must alight and rest; a much smaller stream than the Mississippi would stop their progress, and drown them all; they are doubtless indigenous. As to how the stock is preserved through the winter, and for years, I believe no one knows. Their appearance is equally as irregular in the West Indies as here, and from what I have seen of them in the Bahamas, they are much more at home here. On clear, hot days there, they can only feed at night, or early in the morning, or late in the afternoon; I have seen them drop dead from the leaves there, when they have remained too long on bushes, from the heat of the sun: and I have also seen them killed there in immense numbers by the little cold, caused by a north or north-west wind in October or November: here I have seen them feed all day in July and August, with the thermometer five to ten degrees higher, and I have seen them also feeding on leaves covered with frost—the identical same striped caterpillar. These worms first made their appearance in the French West India Islands; the inhabitants called them *chenielle*, and hence the general name for this peculiar worm. In 1814, or thereabouts, the *chenielle* made their appearance in great numbers early in June, in Iberville, and ate our cotton close down to the ground. Cotton was then planted in April, and the main stems were so tender, that the worms ate them up. The doctor is mistaken in saying that these worms feed upon cotton bushes alone, for this very year they fed first upon the young tender crab grass, and ate the whole of it up before they attacked the cotton, and in the West Indies they feed promiscuously upon the leaves of a plant, there called the *salve bush*; this plant grows about the height, and the leaves are a good deal like the mullein of this country, having a whitish color, and thick, soft velvety feeling.

Can the doctor tell us how it happens that the tobacco worm finds out every plant of tobacco, scattered in nooks and corners, far from tobacco plantations, and on the first year of planting it? Is it not possible that the same species of worm feeding on different plants may change its appearance?

In the year above mentioned, the *chenielle* made their appearance simultaneously in Iberville, and adjacent parishes, and at Colonel Thomas's, on the Bayou Barbara, situated ten miles, on a strait line, from any other plantation. As to the means of destroying them, except by their natural enemies, I conceive we have only one or two ways, and these very equivocal. Their propensity to fly into a light at night is known to every one, where they exist in the fly-state. By kindling blazing fires at night, at a proper distance apart, and keeping them burning briskly, from eight to ten o'clock at night, immense numbers are destroyed. (This is their principal time for flying about, and they will travel about three acres to a fire.) The fly ought to be watched, and as soon as they leave the chrysalis, and before they deposit their eggs, these fires ought to commence. I have known some good result from this, and if the measure had been followed by all the neighboring planters I make no doubt but that nearly the whole crop would have been saved. We might do some good by sending all hands into the field and crushing them while in the chrysalis state; but it would be tedious work to destroy them in this way: we could hardly afford the loss of time from other work; fire can be made with much more facility.

COTTON PLANTING IN OUACHITA.

We are indebted to a cotton planter of Ouachita, now occupying a distinguished post in the country, for a copy of a very valuable paper prepared by him, and exhibiting many particulars in the management of a successful cotton estate for a series of years. Papers of this kind have great value, and if any number of such could be procured, say from planters in every district throughout the cotton region, we should be able, from their comparison and from deductions and inferences, to make up and publish results, no doubt the most striking and important. But it is almost impossible to induce the planters to preserve such records, or to furnish them to those who would make the proper application.

One Ouachita planter deduces five principles from his facts and observations: 1. That the cotton crop cannot be much increased in the United States: 2. that the crops of Ouachita, though not large, have, for a series of years, averaged more than in most other places, being one bale to the acre for eight years, and in 1846, two-thirds bale to the acre, while one-fourth to one-tenth was made on the other best soils in the State: 3. that the proceeds of the cotton crop are not in proportion to quantity: 4. that the caterpillar is likely to be much less injurious so far north as Ouachita, they never having done serious mischief there before 1846.

Table showing the production of Cotton, its price, &c., on an estate in Ouachita, for eight years, with the amount of supplies purchased.

Date.	No. of bales.	Price.	Net proceeds.	Average per bale.	Woolen, Negro clothing.		Cottons.	Pork used.
					yards.	yards.		
1839	451	54 @ 8½	12,366	28.00	750*	1,250†	75‡	
1840	451	9 @ 12½	14,720	37.50	750	1,250	75	
1841	451	9 @ 9½	10,338	30.33	750	1,250	75	
1842	509	4 @ 7½	12,057	39.33	750	1,250	75	
1843	399	11 @ 9	12,149	31.00	820	1,600	80	
1844	391	11 @ 6½	8,345	21.00	820	1,600	80	
1845	478	6 @ 7½	13,630	28.00	820	1,600	80	
1846	478	11 @ 11	14,474	43.50	820	1,600	80	
			98,299	31.40	785 av.	1,425	77	

It will be seen from the above table, that the average amount of cotton raised during the eight years, was 415 bales; average price, 9½ cents per pound; average proceeds per year, \$12,289; average per bale, \$30.39. The weight of the bales was 400 to 450 lbs. The land cultivated was increased from 400 acres in 1839 to 550 in 1846. The number of slaves was not augmented more than two or three during all the time by purchase, and the land was rather improved by ditching than exhausted.

VALUE OF COTTON CROP.

From a paper prepared by Mr. Henry of Mobile.

The crop of 1844, the largest we ever made, was 2,400,000 bales, weighing on an average 440 lbs. each. It was sold at an average of 4½ cts. per pound, which amounted to \$50,160,000. The latter part of that and part of the following year was one of our most gloomy periods, as all our hopes of a check to production were mere hopes. The crop of 1845 was 2,100,537 bales of 440 lbs., sold at 6½ cts. per lb., amounted to \$62,385,000. The crop of the past year, in bales, will be about 1,780,000, and allowing at each port the same weight to their bales for this as last year, their average is 428 lbs.; but if the proportionate falling off in weight elsewhere equals what it appears to be at this port (13 lbs. a bale), the average would only be about 416 lbs. But let us call it 420, and at 420 lbs. it would only make 1,697,722 (a few thousand less than my estimate of December last, which was 1,700,000), and this crop, sold at an average of 10 cts., produces you \$74,760,000. Let me recapitulate:

1844	- - -	2,400,000 bales at 4½ cts.	- - -	\$50,160,000
1845	- - -	2,100,537 " 6½ cts.	- - -	62,385,000
1846	- - -	1,697,722 " 10 cts.	- - -	74,760,000

The result is amazing; and do these figures not address themselves to the minds of planters in unbounded force, and in the most urgent as well as persuasive voice, entreat them to nurse and cherish, and not destroy their lands? for those lands and our climate are more precious than mines of gold. And do we not see that we have the strongest imaginable inducements to enter upon other enterprises? Throughout the South, and especially Alabama, the best water power for cotton factories and most valuable minerals abound. Several railroads are projected that would be profitable, and the chartering of some good stock banks is promised us by all parties. Strike out new modes of investment, and take the lead yourselves in it, and your interest will be doubly promoted.

PROFITS ON CAPITAL IN COTTON PLANTING.

Now I come to a survey of the yield of the cotton planting interest. I was forming estimates and averaging them, of what amount of capital was thus engaged, when I fell on that of the Secretary of the United States Treasury. He estimates the capital employed in cotton planting at NINE HUNDRED MILLIONS OF DOLLARS. I presume it will amount fully to that. Let us see the product of the crop of 1844 (say 2,400,000 bales), on this capital. The crop you observe, as noted above, sold for \$50,160,000 gross, which is a fraction over 5½ per cent. gross. The crop of this year yields \$74,760,000, which is about 8½ per cent. gross, and in either year falls immensely below what is considered the smallest yield on capital otherwise invested. Fifteen per cent. on \$900,000,000 would be \$135,000,000. The calculation is easily made that a crop of 2,000,000 bales, of 420 pounds each, to bring \$135,000,000, should sell at 16 cts. per pound; or a crop of

* Linsey from 30 to 50c. per yard.

† Lowells from 12 to 30.

‡ In addition to what was raised in the place.

2,200,000 bales of the same weight, at 14½ cents. You must not understand it as my opinion that you will get such prices. I scarcely hope for such, but I present them to show how the account stands. I know that after this year there must arise in the aggregate an enormous sum of surplus money among the cotton planters, and I have ventured these remarks that they may begin to adopt measures for its employment, which will do the whole country good, and tend rather to increase their wealth and enhance prices than to reduce them to nothing again.

ESTIMATED CROP AND PRICES, 1847-48.

Were I asked if prices would be pretty good next season, I should answer yes. Were our crop to reach 2,200,000 bales, I should say a range of from 10 to 12½ cents might be expected. If you make less you may get more, provided no false estimates of the crop are got up, such as some parties in Savannah made and promulgated, making the past crop 2,175,000. To these estimates, and some made in Charleston, I attribute the cause of a large portion of the best cotton of the Atlantic States being early hurried to market, which was bought up at 7½ a 9 cents. This, shipped to Liverpool, has had a serious influence on that market in prices, and from which I do not think they have fully recovered.

THE COTTON GIN.

From Professor Olmsted's able Memoir of Eli Whitney which has lately come into our possession, we extract a remarkable passage.

The pecuniary advantage of this invention to the United States is by no means fully presented by an exhibition of the value of the exports of cotton (amounting to more than \$1,400,000,000 in the last forty-three years), nor by the immense proportion of the means which it has furnished this country to meet the enormous debts continually incurred for imports from Britain and the European continent—cotton having for many years constituted one-half, three-fifths, or seven-tenths of the value of the exports of the Union. But it was the introduction of the cotton-gin which first gave a high value and permanent market to the public lands in the South-west. The rapid settlement and improvement of almost the entire States of Alabama, Mississippi, Louisiana, Florida, and Texas, is mainly due to the enlarged production of cotton, consequent upon the invention of Whitney. The States of Georgia and Tennessee have also been largely benefited by the same means, in the disposal of their domain, a vast portion of which must have remained unoccupied and valueless but for the immense increase of facilities for the preparation of cotton for the market. In the three States of Alabama, Mississippi, and Louisiana, the sales of the public lands of the general government amounted to 18,099,505 acres, during the eleven years, ending on the 30th of June, 1844—yielding to the National Treasury more than \$30,000,000. The sales of upland cotton lands by the United States land-offices, have amounted to many tens of millions of acres; and none have been sold at a lower rate than \$1 25 an acre—a large proportion at a higher rate.

It is to be remarked, finally, that the cotton-gins now in use throughout the whole South, are truly the original invention of Whitney—that no improvement or successful variation of the essential parts has yet been effected. The actual characteristics of the machine (the cylinder and brush), the sole real instruments by which the seed is removed and the cotton cleaned, REMAIN, in cotton-gins of even the most recent manufacture, PRECISELY AS WHITNEY LEFT THEM. The *principles* has not been altered since the first cotton-gin was put in motion by the inventor, though great improvements have been made in the application and direction of the moving forces, in the employment of steam-power, in the running-gear, and other incidentals. Every one of the various cotton-gins in use, under the names of different makers, contains the essentials of Whitney's patent, without material change or addition. The brush and the cylinder remain, like Fulton's paddle-wheel, unchanged in form and necessity, however vast the improvements in the machinery that causes the motion.

ANALYSIS OF THE COTTON PLANT.

At the Farmers' Club of New York, the Hon. Dixon H. Lewis, of Alabama, remarked that the seed of the cotton made rather more than $\frac{1}{4}$ of the plant, and every 1200 lbs. gives 350 clean cotton. "The Club, in accordance with his suggestion, resolved upon having prepared a complete and perfect analysis of the stalk, boll, fibre and seed of the cotton plant." The analysis hitherto made by Dr. Shepard, extended only to the wool and seed. The results as we have them are: one hundred parts cotton wool lost 86.09 parts in a platina crucible, leaving a charred residuum, "which on being ignited under a muffle until every part of the carbon was consumed, lost 12.965 and left an almost purely white ash whose weight was 0.9247. Of this ash about 44 per cent. was found soluble in water.

* Mr. Henry estimates it at 2,150,000 as the very highest limit.

It contained 12.88 of sand an, adventitious product of harvesting. Deducting the sand, the constitution of the ash is obtained; and abstracting the carbonic acid as the result of incineration, Dr. S. shows that to constitute every 100 parts of the ash, the cotton plant will take from the soil the following important mineral ingredients:

Potassa (with possible traces of soda).....	31.09 pounds.
Lime.....	17.05 "
Magnesia.....	3.96 "
Phosphoric acid.....	12.30 "
Sulphuric acid.....	1.93 "
	<hr/> 64.93

Or for 10,000 lbs. cotton wool there will be taken 64.93 lbs. of these elements.

A table corresponding with the one above is derived from experiments upon *Cotton seed*:

Phosphoric acid.....	45.35
Lime.....	29.79
Potassa.....	19.40
Sulphuric acid.....	1.16
	<hr/> 95.70

In comparing the above table with that afforded by the cotton wool, a marked dissimilarity presents itself. The ash of the cotton seed is fourfold that of the fibre; while the former has also treble the phosphoric acid possessed by the latter, as will the more clearly appear when we present the analysis under another form, corresponding with the second table under cotton wool.

From the foregoing analysis, it would appear difficult to imagine a vegetable compound better adapted for fertilizing land than the cotton seed; nor can we any longer be surprised at the well-known fact, that soils long cropped with this staple, without a return to them of the inorganic matters withdrawn in the seed, become completely exhausted and unproductive.

Dr. Ure gave, in 1825, the following

ANALYSIS OF SEA ISLAND COTTON.

1. Matter soluble in water, sixty-four parts, consisting of

Carbonate of potash.....	44.8
Muriate of potash.....	9.9
Sulphate of potash.....	9.3

2. Matter insoluble in water,

Phosphate of lime.....	9.0
Carbonate of lime.....	10.6
Phosphate of magnesia.....	8.4
Peroxide of iron.....	3.0
Alumina a trace, and loss.....	5.0
	<hr/> 100.0

EAST INDIA COTTON.

A paper lately read before the British Association, by Prof. Royle, on the statistics of the cotton trade.

In the Peninsula of India, the success in its production has been considerable. Cotton from this district may be landed in Liverpool at 3½d. per pound. Thirty-four bales of cotton have been sent from this district to Liverpool, valued at 6½d. a pound, and considered equal to "fair New Orleans." This after paying 3½d. for the expense of conveyance from the place of growth, leaves 3½d. for the grower.

In the Southern Mahratta country, especially near the Dharwar, the culture of cotton has attained complete success under Mr. Mercer, the "intelligent American planter." The climate here is considered by Mr. Mercer to be like that of South Carolina, and the seed he found returning to its original character. He also states that there is abundance of land fitted for cotton culture, and that nothing is required but a regular demand to have the land covered with cotton. Indian cotton is known to be possessed of certain good qualities, such as its color, the readiness with which it takes color in dyeing, and its great swelling in the process of bleaching. Both

the latter effects are probably owing to its being grown in a comparatively dry climate. The chief cause which has hitherto prevented the ready consumption of Indian cotton in the English manufactories is the *dirty state in which it is sent to market.*

The average price for upland American cotton for the 14 years from 1808 to 1821, was 15½d. to 24d. per pound. That of Indian or Surat 13½ to 18d.

The average of American for the 14 years ending with 1841, was 6½d. to 8½d. That of Indian 3½d. to 6½d.

In 1845 the average of American cotton was about 4½d. That of Indian from 2½d. to 3d. per pound.

The average export of Indian cotton for the five years previous to 1825 was 39,567 bales; that of 1844, was 233,436 bales; that of 1846 only 185,119 bales; but it would rise again in 1847.

COTTON MANUFACTORIES IN SOUTHERN STATES.

It is our intention to keep up this department. We have lately obtained this from Georgia, through the *Augusta Chronicle*. In the small village of Union there are four cotton factories in operation, one being built, as also a paper-mill.

"The Thomaston factory is owned by Messrs. Rogers & Turner. It has in operation 1,260 spindles, 16 cards, 24 looms, 50 operatives, and consumes 700 lbs. of cotton per day. The Flint River factory (Walker & Grant, proprietors) has 1,560 spindles, 16 cards and 26 looms. The number of operatives about 50—consumption of cotton 700 lbs. The Franklin factory, with 1,320 spindles and 16 cards; and the Wayneville factory with 1,568 spindles, 16 cards and 26 looms, employing 125 operatives, are both owned by Messrs. Perry, Respass & Co. The quantity of cotton required annually for the two is about 1,100 bales. In the Franklin factory wool-carding is also done. The fifth, not yet in operation, is owned by Messrs. McAlpin & Son of Savannah. The extent of its machinery is not stated.

A late number of a *Pensacola (Florida) paper* speaks of a cotton-mill at Arcadia, a neighboring village, worked by negroes. The machinery is moved by an ample fall of water, and with thirty-three or thirty-four young colored girls, six or seven colored boys, and two or three white overseers from the North, turns out some 5,000 yards of excellent domestic, weekly. The mill is in as fine order as any we have ever seen—the operatives all young, intelligent and cheerful. They are provided for at one table, and their looks do credit to their fare. They were selected, with care, for this establishment, and probably at an average cost of about \$400 each. The mill is owned by a small company of enterprising gentlemen, of this city and vicinity, and has been in operation but little over a year. As an experiment, we are happy to hear it has more than answered the sanguine expectations of its worthy projectors.

The application of negroes to cotton manufactures is by no means new, as the *Pensacola paper* seems to think. They have long been used in parts of Georgia; and Montgomery, who traveled through our country and wrote a book upon manufactures, tells us that there were several cotton factories in Tennessee operated entirely by slave labor, there not being a white man in the mill but the Superintendent. "The blacks do their work in every respect as well as the whites."^{*}

AMERICAN STATES AND CITIES.

I.—NORTH CAROLINA, ITS RESOURCES, MANUFACTURES, ETC.

Our friend Alexander McRae, Esq., President of the North Carolina Railroad Company, was kind enough to furnish the following paper, prepared with some pains at our particular request. Gen. McRae complains of his having been baffled in obtaining information from most of the sources to which he had written, and that "he gives these detached items, since there is no possibility of making up a full and correct table."

In the State of North Carolina, there are at present in operation

* See also Grogg's Essays, p. 21.

- 25 Cotton factories,* running 48,000 spindles,† and 438 looms, employing 1,323 hands, and using about 5,600,000 pounds of cotton. The capital invested in these factories is about \$1,200,000.
 - 8 Furnaces for cast iron.
 - 43 Bloomeries.
 - 2 Paper mills, producing in value \$8,755.
 - 323 Flouring mills, producing 87,641 bbls. of flour.
 - 2,033 Grist mills, and 1,060 saw mills.
 - 46 Oil mills.
 - 353 Tanneries, producing 151,082 sides of leather, and employing a capital of \$271,797.
- In the fisheries on Albemarle sound, the capital employed is estimated at \$300,000. There are employed in these fisheries 5,000 hands who put up about 90,000 barrels of herrings, besides a considerable quantity of shad and rock fish.
- These fisheries give employment to 200 vessels, and use 100,000 bushels of salt.

PRODUCTS OF NORTH CAROLINA.

1,960,855 bushels of wheat.	2,820,388 lbs. of rice.
3,574 " " barley.	16,772,369 " " tobacco.
3,193,941 " " oats.	51,926,190 " " cotton.
213,971 " " rye.	17,163 " " sugar.
15,391 " " buckwheat.	3,014 " " silk cocoons.
23,893,763 " " Indian corn.	102,369 tons of hay.
2,609,239 " " potatoes.	9,880 " " hemp and flax.

There are 2,802 distilleries, producing 1,061,979 gallons.

MINES.

The State is rich in mines of gold, silver, copper, iron and coal; but it is not possible at present to obtain anything like correct statistics of their number or value.

In the May number of Commercial Review, 1847, we gave the commerce of Wilmington. It contains 10 steam saw mills, 4 planeing mills, 17 turpentine distilleries with 45 stills.

DISMAL SWAMP CANAL.

There passed through the Dismal Swamp Canal, from North Carolina to Norfolk, Va., from the 1st. Oct., 1846 to the 31st. July, 1847 (ten months),

Building shingles	20,753,350
2 feet shingles	732,390
3 feet shingles	874,310
Total	22,360,050
Hogshead staves	4,881,640
Barrel staves	284,520
Pipe staves	90,090
Total	5,256,350
Cubic feet of plank and scantling	139,100
Cubic feet of timber	43,685
Bales of cotton	3,722
Barrels of fish	47,386
" " naval stores	30,505
" " spirits turpentine	688
Cwts. of bacon	4,366
Kegs of lard	1,299
Bushels of corn	1,261,099
" " wheat	26,225
" " peas	21,956

The Newbernian gives the following in relation to turpentine :

THE TURPENTINE BUSINESS.

We find the impression to be, that about 800,000 barrels of turpentine are now annually made in this State. The estimated value to the makers is about \$1,700,000 annually, and may be \$2,000,000. About four or five thousand laborers are engaged in making it, and perhaps three times as many more human beings are supported mainly from the proceeds of its first sale. It is supposed that there are now in operation about 150 stills, which, at an average cost of \$1,500, with fixtures, show that there is an ex-

* And three others in progress of construction.
 † This item is no doubt below the mark.

penditure of \$225,000 to begin with, in the distilling of spirits of turpentine. The cost of distilling is very great, and when we reckon the cost of transportation, the profits of distillers, of ship owners, commission merchants, and the vendors of the article abroad, it will be seen that the capital and labor employed is not only immense, but the numbers who are supported by the manufacture and sale of the article is astonishing. Perhaps there is no one article produced in this country by the same number of laborers, which contributes so much to the commerce and prosperity of the country as the article of turpentine.

2.—MASSACHUSETTS AND THE WEST.

At the great Internal Improvement Convention of Chicago, A. Burlingame, Esq., of Boston, observed:

"Massachusetts claimed to have saved by the firmness of one of her sons in Paris, in 1783, the whole country north of the Ohio, which it was proposed to surrender to Great Britain. A son of hers drew the ordinance of 1787, securing freedom to the country, and the means of education to all its children for all time to come, in the reservation of every 16th section of land for school purposes. A son of hers drew the bill which passed Congress three or four years since, extending the maritime law over the lakes. A son of hers first settled the great State of Ohio. She had furnished judges, governors, and eloquent members of Congress to the West. She had three articles of export—granite, ice, and men. Alas! of the latter she had exported too largely. He found them by every lake and river, on every hill and in every valley, and saw their white fences drawn like chalk lines over every prairie in the West. But he found them everywhere with hearts in their bosoms, which throbbed wildly at the mention of the 'Old Bay State.' They might for a time desert her principles and denounce her, but a still, small voice in their bosoms was saying, 'You love her still.' They could not forget her, though long ago their feet turned away from her rugged soil. Massachusetts recognizes a political relation not narrow in its extent. She believed a benefit due to one portion of the country was a benefit to the whole country. She believed, in the language of her great son, that we have 'one country, one constitution, one destiny.'

"But another and important relation was one of a commercial character. Boston, her capital city, early saw the importance of the commerce of the West. She had stretched out her iron arms to meet it. 1st, in the Western railroad. She owned a controlling interest in the New York and Erie railroad. She was now extending her strong right arm in the Ogdensburgh railroad—taking the trade of the Canadas and the West simultaneously. She had millions in the rivers of Ohio, and in the Central railroad of Michigan. In fact some of her delegates here present had come nearly every inch of the way, over mountain and river, on railroads owned in the city they were present to represent.

"Boston had long felt the life-giving influence of the Western trade; her docks had not been of granite; the lines of her buildings would not have swayed to those beautiful proportions we behold, but for this trade; and this it was that linked her fortunes with those of the West, and she was determined to draw still closer these ties. The eloquent gentleman from Georgia (Mr. King) said they were pushing an iron arm from his State, through the Cumberland to the Tennessee, to participate in this trade. Boston would meet them in the valley of the Mississippi with many arms. The people were warned in some quarters not to come here, for Boston would give a tone to the proceedings of this convention. He was sure it would be a moral, constitutional tone. It was said she had no right to be here. Who had a greater—who had more at hazard in the way of insurance on these lakes and rivers—who would have a larger stake in the property and money responding to the twenty-five millions of bushels of wheat now on its way, or to be on its way, to the Atlantic slope this year?"

3.—THE CITY OF NEW YORK.

The progress of the city of New York is one of the most remarkable features in the wonderful growth of the Western world. The origin of the city was purely commercial, and the increase of commerce has impelled and sustained its prosperity. The date of the discovery of the Hudson river was long a matter of dispute, being assigned by some to the year 1608, until it was finally settled at Sept. 3, 1609. Henry Hudson sold his title to the Dutch West India Company, and they formed a trading post in the same year. The English South Virginia Company assailed this settlement and broke it up in 1618. In 1620, however, James I. reinstated the Dutch, and establishments were formed for the purpose of supplying with water and provisions the vessels trading between Holland and Brazil—a curious fact in the navigation of those times. The settlement grew in importance and was erected into the province of New Netherlands in 1629, and so continued until 1664, when the English took forcible possession, and Charles II. transferred it to his brother the Duke of York, from whom it derived its present

name. In 1673 the Dutch re-conquered it, but ceded it by treaty again to the English in 1764. In all this time the place was simply a trading settlement, and in so far was totally unlike the cities and towns of New England, which were commenced as asylums for those expelled by oppression from home. The population at the time of the cession was 3,430, 343 dwelling-houses, and owned about twenty vessels, with some ten or twelve trading ships that belonged to the mother country. In 1750 the population reached 33,000; trade had considerably increased, and exports of Connecticut and New Jersey produce had become important; 80,000 bbls. flour, with other farm produce in considerable quantities, were sent to the West Indies. In 1755, some 15,000 hhd. flaxseed were sent to Ireland. The inland presented no facilities for manufacturing, and the occupation of its inhabitants continued purely commercial. In 1800 the population of the city had grown to 60,489, and the resources of the city, which had begun to assume the character of a general market for the whole country, were brought into full operation by the active demand for produce that grew out of the continued war of Europe.

The war of 1812 seriously affected the prospects of the city, and materially checked its growth. Its recovery afterward was slow, until the construction of the Erie Canal in 1827, since when the progress has been rapid, as seen in the following table of population, trade and capital of moneyed institutions of the city, taken from official sources:

POPULATION, TRADE, AND MONEYED CAPITAL OF NEW YORK.

	1827.	1847.	Increase.	Decrease.
Population.....	171,220	392,000	220,880	.....
Imports.....	37,783,147	70,269,792	32,486,645	.....
Duties received.....	11,178,139	17,300,697	6,122,558	.....
Exports.....	22,309,362	37,493,483	15,184,121	.....
Registered tonnage.....	128,702	260,896	132,194	.....
Licensed tonnage.....	132,443	311,626	179,183	.....
Banks.....	16,100,000	24,011,760	7,911,760	.....
Insurance companies.....	17,450,000	15,886,700	.....	1,563,300
Other corporations.....	4,800,392	18,465,820	13,665,428	.....
Val. arrivals at Hudson river	4,180,000	51,105,256	46,925,256	.....

About the year 1827 a great and wild speculation in Insurance Companies had taken place, which resulted in an explosion, implicating Jacob Barker and the late Henry Eckford; who were persecuted out of the city by men that afterward became conspicuous in the paper bubbles of 1836-37. The insurance capital of 1847 is therefore less, but there are 17 outstanding charters of capital \$6,000,000, not included in the return of 1847. The imports of 1846 were not large, but are nearly double those of 20 years previous. The exports have increased 75 per cent. The registered tonnage represents the vessels engaged in foreign trade, and the licensed those in the coasting trade. The latter has increased in the greatest degree it appears. The value of produce coming down the Hudson has swollen the coasting tonnage and supplied the market for exports—as has also the increase of the cotton trade, which has been important. When the Erie Canal was built—it being before the era of railroads—a project was entertained of cutting another through Massachusetts, that Boston might derive the benefit of the western trade; and doubtless that would have been done but for the great natural difficulties in the way. Within the last few years the Western railroad has realized that project by a different means. New York will not, however, if proper enterprise is displayed, be seriously injured by any competition, but must continue to grow until the island at least is settled. From the space now occupied by the present number of inhabitants, it is probable that the island will hold 1,300,000, and will reach that number in 1877, besides the great spread of Brooklyn, Jersey City, &c. The progress of railroads and the incessant means of internal communication, simultaneously with enhanced liberality in relation to commerce evinced by all European nations, must give a great stimulus to the only means of the city's prosperity, viz.: commerce. As we have seen from its earliest settlement, it has depended solely upon trade, and its future growth depends upon the spread of its commerce. If that continues what it has been, within 30 years all the real estate on Manhattan Island will be covered with dwellings, and, as a consequence, double in value.

There is no reason why New York should not grow as rapidly as London, which has progressed as follows:

1801.....	864,898	1831.....	1,478,949
1817.....	1,009,548	1841.....	1,873,676
1821.....	1,226,338		

The city of London is situated 45 miles from the sea, in the midst of the most fertile counties in England. She has attained the vast population by her commerce and great enterprise, notwithstanding her distance from the sea; and when we compare the advantages of New York and reflect that London has added 873,676 to her population in 30 years, there remains no doubt but that New York will do likewise. A great element in the increase of New York commerce is the enhancement of her cash capital. The last ten years of large exports of produce has added wonderfully to her means in that respect.*

4.—THE CITY OF BOSTON.†

In 1638, eight years after its settlement, Boston was said to be rather a village than a town, consisting of no more than twenty or thirty houses. In 1675 the population was 4,000; 1690, 7,000; 1704, 6,750; 1720, 11,000; 1735, 16,000. Slaves in 1754, 989, or one-sixteenth of population. In 1765 the inhabitants were 15,520; 1776, 2,719 whites, the rest having dispersed on account of the revolution; 1789, 17,880; 1790, 18,038; 1800, 24,937; 1810, 33,787; 1820, 43,298; 1830, 61,392; 1840, 85,000; 1845, 114,366. The annual average increase shown by the first six national censuses was 3.82, 3.54, 2.81, 4.17, 3.84; but the census of 1845 shows an increase of 7 per cent. per annum, during the last five years.

There are in operation 700 miles of railway radiating from Boston, having a capital of \$22,202,700, and having cost \$26,712,123 57.

RAILROAD BUSINESS DONE IN 1845.

Names.	Miles traveled.	Income.	Expenditures.	Div.
Eastern.....	218,583	\$350,149 55	\$116,840 00	8
Maine.....	194,946	287,063 10	154,099 95	7
Lowell.....	175,537	356,067 67	179,042 13	8
Nashua (branch).....	43,065	112 680 89	48,009 94	15
Fitchburg.....	167,816	203,996 36	78,333 76	8
Charlestown (branch).....	14,800	26 814 04	16,276 77	
Worcester.....	253,706	487,455 53	249,729 50	8
Norwich (branch).....	173,230	204,308 45	134,229 03	3
Western ".....	530,201	813,480 15	370,621 25	
Connecticut River (branch).....	15,268	13,521 06	8,001 96	
Hartford (branch).....	14,559	.....	.....
Berkshire ".....	29,359	.....	.....
West Stockbridge (branch).....	4,410	2,311 20	447 52	4
Providence.....	175,203	350,628 97	197,827 11	7
Stoughton (branch).....	4,232	7,810 00	2,904 76	4
Taunton ".....	27,988	116,536 99	100,889 95	8
New Bedford ".....	48,040	78,211 12	29,353 76	7
Old Colony.....	2,550	.....	.....
Middleborough (branch).....	17,800	15,796 72	8,205 83	
Total.....	2,111,293	\$3,426,831 80	\$1,694,812 52	

PUBLICATIONS IN BOSTON.

Class of Publications.	No. of Publications.	Square Inches.	Value.
Daily subscription.....	5,075,320	4,796,029,240	\$106,076
Daily penny.....	11,408,000	7,018,617,000	110,400
Semi-weekly.....	1,463,448	1,442,010,336	58,748
Weekly.....	11,610,040	8,738,546,856	334,895
Semi-monthly.....	458,400	216,314,400	31,700
Monthly.....	2,583,600	1,522,477,200	127,190
Bi-monthly and Quarterly.....	37,200	143,076,800	24,500
Annual.....	255,500	265,045,300	31,565
Total.....	32,890,506	24,132,117,132	\$825,074

* True Sun, August 4, 1847.—The reader will find various statistics of the commerce of New York in our back volumes—a subject we shall occasionally resume.

† For these statistics we are indebted to that noble work, the "Census of Boston," got up by public authority, by Lemuel Shattuck, Esq., and published last year. It should be imitated by every State in the Union. Such a monument would be worthy of our country.

It thus appears that 32,890,508 publications are issued annually from the Boston press, averaging 109,098 daily, allowing 310 working days to the year, valued at \$25,074. These contain 24,132,117,132 square inches, or 3,847 acres of printed sheets, averaging 12 acres each day. Deducting ten per cent. for the margin of the sheets not printed, and there remains 6,926 acres of printed surface which goes out to the public mind, to influence or *educate* it for good or for ill. And it is supposed that the number of sheets printed for books and other publications, not named in the above account, or not periodical, makes a near approach to the same amount.

CHARITIES OF BOSTON FROM 1830-46.

Religious contributions.....	\$1,120,219 75
Instruction.....	1,161,128 16
General charity.....	2,272,990 51
Miscellaneous.....	438,321 39
Total.....	\$4,992,659 81

This not including the private acts of benevolence, which are supposed as much more. Of these donations, \$268,753 83 were given in 1845.

COMMERCE OF BOSTON.

Year.	Imports.	Exports.	Revenue.
1824.....	12,828,253.....	5,036,963.....	4,193,112 81
1825.....	15,231,856.....	6,078,619.....	5,047,814 25
1826.....	12,627,449.....	6,780,577.....	3,988,378 46
1827.....	11,591,830.....	7,322,910.....	4,179,494 67
1828.....	12,540,924.....	7,438,014.....	4,597,176 86
1829.....	9,990,915.....	5,881,717.....	4,167,199 78
1830.....	8,348,623.....	5,180,178.....	3,662,301 78
1831.....	13,414,309.....	5,896,092.....	5,227,592 00
1832.....	15,760,512.....	10,107,768.....	5,524,839 36
1833.....	17,853,446.....	8,062,219.....	3,895,036 71
1834.....	15,614,720.....	7,309,761.....	2,830,172 69
1835.....	19,038,580.....	7,952,346.....	3,624,771 94
1836.....	25,897,955.....	8,475,313.....	4,470,053 73
1837.....	15,027,842.....	7,836,270.....	2,565,830 67
1838.....	13,463,465.....	7,036,882.....	2,411,155 95
1839.....	18,409,186.....	8,013,536.....	3,294,827 65
1840.....	14,122,308.....	8,405,224.....	2,456,926 22
1841.....	18,908,242.....	9,372,612.....	3,226,441 47
1842.....	12,633,713.....	7,226,104.....	2,780,186 04
1843.....	20,662,567.....	7,265,712.....	3,491,019 82
1844.....	22,141,788.....	8,294,726.....	5,934,945 14
1845.....	21,591,877.....	9,370,851.....	5,249,634 00

PROGRESSIVE WEALTH OF BOSTON.

Years.	Real Estate.	Personal Estate.	Total Valuation.	Polls.	Tax.	Tax on \$100
1800.....	6,901,000	8,194,700	15,095,700	4,543	83,428 75	39
1810.....	10,177,200	8,272,300	18,450,500	7,764	144,486 72	40
1814.....	16,557,000	13,859,400	30,416,400	6,636	131,330 00	45
1815.....	18,265,600	14,647,400	32,913,000	6,457	157,794 00	40
1816.....	21,059,800	15,448,000	36,507,800	7,755	157,663 70	40
1817.....	21,643,600	16,373,400	38,017,000	7,497	163,313 50	41
1818.....	22,321,800	16,879,400	39,201,200	7,699	172,592 04	36½
1819.....	22,795,800	16,583,400	39,379,200	8,030	169,859 10	40
1820.....	21,687,000	16,602,200	38,289,200	7,810	165,228 30	39½
1821.....	22,122,000	18,671,600	40,793,600	8,646	174,968 32	35
1822.....	23,364,400	18,775,800	42,140,200	8,880	167,583 37	35
1823.....	25,367,000	19,529,800	44,896,800	9,855	172,423 60	35
1824.....	27,303,800	22,540,000	49,843,800	10,807	228,181 65	42½
1825.....	30,992,000	21,450,600	54,442,600	11,660	201,039 10	40½
1826.....	34,203,000	25,246,200	59,449,200	12,602	226,975 20	35
1827.....	36,061,400	29,797,000	65,858,400	12,442	242,946 40	35
1828.....	35,908,000	25,615,200	61,523,200	12,535	235,115 77	35½
1829.....	36,963,800	24,104,200	61,068,000	13,495	261,461 10	39½

Years	Real Estate	Personal Estate	Total Valuation	Popl.	Tax	Tax on \$100
1830	36,960,000	22,696,000	59,656,000	13,696	269,967	30
1831	37,675,000	23,023,200	60,698,200	13,618	260,184	89
1832	39,145,200	26,369,200	67,514,400	14,184	298,085	84
1833	40,966,400	29,510,800	70,477,200	14,889	321,876	60
1834	43,140,600	31,666,200	74,806,800	15,137	374,292	76
1835	47,562,800	31,749,800	79,302,600	16,188	408,899	61
1836	53,373,000	34,895,000	88,248,000	16,719	444,656	65
1837	56,311,600	32,972,200	89,283,800	17,182	473,693	00
1838	57,372,400	32,859,200	90,231,600	15,615	465,557	34
1839	58,577,800	33,248,600	91,826,400	16,561	543,660	66
1840	60,424,200	34,157,400	94,581,600	17,696	546,743	80
1841	61,963,000	36,043,600	98,006,600	18,915	616,419	10
1842	65,499,900	41,223,800	106,723,700	19,636	637,779	09
1843	67,673,400	42,372,600	110,056,000	20,063	712,379	70
1844	72,048,000	46,402,300	118,450,300	22,339	744,210	30
1845	81,991,400	53,957,300	135,948,700	24,287	811,338	09

5.—LAFAYETTE, LOUISIANA.

It will be observed, that this thriving town has grown up immediately without the corporate limits of New Orleans, and evinces great prosperity. In sixteen months, as was found by the census the other day, an increase of 2,224 has been added to a population of 7,008. The Delta remarks:

"There is another remarkable fact in these returns, which, in the South, will give a peculiar character to the composition of the population of Lafayette—that is, the small proportion of the slave to the free population. The whole number of slaves is about one-eighth that of the whites. This is owing to the fact that Lafayette has been chiefly settled by a laboring population, mostly German and Irish emigrants, who literally fulfil the scriptural command of eating their bread in the sweat of their brow. But this is not the only class which is pouring into this rapidly advancing city. The rear of Lafayette is most beautifully situated for dwelling-houses. The ground is high and dry, and vegetation flourishes on it with amazing luxuriance. Here are collected many of our wealthy citizens, who have built handsome villas, with gardens and large yards, and who seem to us crowded denizens of New Orleans emerging from our little, narrow, damp yards, to be perfect princes of luck and happiness. Here they have elbow-room—fine green plats, for the little ones to scamper and roll upon—trees, to shade and enliven the scene—gardens, redolent of celery and real, sure-enough cabbage—and large commodious one story houses, full of windows on all sides, and without those horrible, knee-cracking stairs, up which the city people are compelled to

'Wend their winding way
'Too often in the sultry day.'

6.—RESOURCES OF TEXAS.

The sleeplessness of our government at this time upon every subject that can concern the national progress must be manifest even to those who deny it all wisdom. The labors of Mr. Walker and Mr. Burke have been *pari passu*. The latter gentleman has lately issued a circular to the citizens of Texas, through the collector, calling for full information upon many important points, which we have long been seeking from the same sources ourselves:

"For instance, the quantity of cultivated, as compared with the uncultivated, land of each county, is desired, and this, it is presumed, is known to the assessor; and the same may be said of many important products. The products enumerated concerning which the information is wanted, are as follows:

Cotton,	Tobacco,	Barley,	Indian Corn,
Rice,	Hemp and Flax,	Rye and Oats,	Potatoes,
Sugar,	Wheat,	Buckwheat,	Hay.

Root Crops—as beets, carrots, turnips, &c., average crop per acre.

Pod Fruits—as peas, beans, &c., average per acre.

Orchard Fruits—as apples, pears, peaches, figs, &c.—productiveness—what attention is paid to them.

Small Fruits—as strawberries, grapes, &c.

Stock Raising—amount of advance or decline—including horses, cattle, hogs, sheep—price of beef, do. of pork, do. of mutton, do. of skins, do. of wool—average weight of fleece, and number of fleeces per year.

Poultry and Eggs—facility of production, price, &c.

Bees and Honey—facility of production, price, &c.

Wages of Labor—agricultural and mechanical.

Cost of transportation to market.

7.—THE WATERING-PLACES OF LOUISIANA.

We condense, from the humorous contributions of our friends of the Delta, a sketch of the beautiful summer retreats which are spread along the coasts of the Mississippi and the Gulf of Mexico, in the immediate vicinities of New Orleans and Mobile. It will be seen, that for some of the good things of life we Southerners in "sultry climes" are not so bad off after all.

I. *Pass Christian*.—First to Pass Christian, the nearest point to New Orleans, and consequently the most accessible and desirable for those city gentlemen who cannot leave the city for any length of time. Here you can get splendid accommodations at the elegant house of our friend Montgomery—successor to Ward—here, too, you have a tolerable good bath, and good fish and oysters, though it is a long-stretch of white beach to the sea. There are a good many private residences and villas here, and many staid and solemn people, who are perfectly satisfied to sit in their balconies, to smoke their Victorias, nurse their appetites, and play out in their imaginations numerous little fishing parties. Boat excursions, lovely storms, snow-capped billows, boats capsized, bold swimming, sharks pursuing, and—but the tragic sequel drives the imagination off into other spheres, and the approaching season, with all its uncertainties—its cotton, sugar and breadstuff operations—the next steamer's news—the crops, the cotton-worm, potato rot, &c., compose the staple of our city denizen's reflections, as he looks out upon the ocean from his villa's balcony and views the broad sea, a fit emblem of the uncertainties of trade and commerce.

II. *Mississippi City*.—Next we approach that great invisible town, destined to eclipse our own Crescent City, the only apparent remains of which are the almost endless pier and tottering wharf. But we are told, for we have never trusted our precious bodies on that pier, which the enterprise and genius of the Mississippi speculators erected, to receive the vast produce which was so confidently expected to be landed here for reshipment to Europe—we have never essayed the long journey along that pier, but we understand that when you have once reached the land, there are many pleasant little houses nestled in the live oaks, where you may pass a few weeks very delightfully.

III. *Biloxi*.—Biloxi is the largest of any of the sea-side resorts. Its regular population must be five or six hundred, and its visiting population considerably more than double that number. Biloxi has many advantages. The town is right on the sea; there is no long white beach to traverse before you can reach the sea; and the soil is good, producing vegetables, and a fine growth of trees. Here you can always get a fine supply of fish and oysters, and an abundance of fruit and all other vegetables. There are a half dozen excellent houses in Biloxi.

IV. *Bay of St. Louis*.—This is a beautiful place, where the land is high and well timbered, the country around well cultivated, with fine roads, and an abundance of all the conveniences and pleasures, both of the sea-side and back-country. It is generally resorted to by families, and such families too! To our ancient or creole population, this has ever been an attractive and popular resort.

V. *Pascagoula*.—The place is appropriately called by such a soft and beautiful name. Pascagoula is perhaps the most desirable of all the places on the Gulf, with reference to enjoyments. The bathing is better than at any other place, and the fish, oysters and crabs are more abundant. There is no lack of timber, the live oak and other trees being thickly strewn along the coast, and the situation of the place is very fine. The company at Pascagoula is a pleasant combination, in about equal numbers, of the citizens of Mobile and New Orleans.

8.—AVOYELLES, LA.

The product of this parish the present year will be 1,500 hhd. sugar, from a cultivation of 2,000 acres cane. A writer from this section remarks: "As for commercial advantages, no portion of our great republic is superior to Avoyelles. During a greater portion of the year no planter is compelled to haul his crop more than ten miles. Running through the whole length of its north portion is Red river, through the central part is Bayou des Glaïseas, navigable for 70 miles by steam. Bayou Rouge, starting from near the centre of the parish and flowing southward into the Atchafalaya, affords steam navigation; while on the south we are blessed with the same advantage from the Bayou Bœuff, and on the east we have the Atchafalaya. These streams not only afford good navigation, but the richest bodies of planting lands. A great portion of these lands remained as their Creator had left them, till ten years ago. The cane is as fine as anything in the

State, and from experiments made last year, we have every assurance that our planters must prove eminently successful in the cultivation of the sugar-cane."

9.—DISTRIBUTION OF PUBLIC MONEY IN INTERNAL IMPROVEMENTS SINCE 1790.

The following is the amount of appropriations that have been made by Congress to internal improvements, specifying the amount to each State :

Maine.....	\$276,575	Brought forward.....	7,851,304
New Hampshire.....	10,000	Florida.....	287,713
Vermont.....	101,000	Mississippi.....	46,500
Massachusetts.....	526,148	Louisiana.....	717,200
Rhode Island.....	32,000	Arkansas.....	486,065
Connecticut.....	160,407	Tennessee.....	11,920
New York.....	2,632,115	Kentucky and Tennessee.....	155,000
New Jersey.....	28,963	Missouri.....	75,000
Pennsylvania.....	207,981	Missouri and Arkansas.....	100,000
Pennsylvania and Delaware.....	38,413	Illinois.....	993,601
Delaware.....	1,038,356	Indiana.....	1,270,734
Maryland.....	55,000	Ohio.....	2,617,662
Maryland, Pennsylvania, and Virginia.....	1,901,928	Michigan.....	645,724
Virginia.....	25,000	Iowa.....	75,000
North Carolina.....	370,377	Wisconsin.....	167,500
Georgia.....	243,043	States through which the Ohio, Missouri, Mississippi, and Arkansas rivers run.....	1,698,000
Alabama.....	204,998		
Carried forward.....	\$7,851,304	Total.....	\$17,199,223

10.—STATE DEBTS 1847.

The following table will be found useful for reference :

States.	Absolute Debt.	Contingent Debt.	Total Debt.	Annual int. on absolute debt.
Maine.....	\$1,274,285		\$1,274,385	\$76,457
New Hampshire.....	none.		none.	
Vermont.....	279,950		279,950	16,798
Massachusetts.....	1,039,215	\$5,049,556	6,088,771	59,336
Rhode Island.....	152,719		152,719	9,163
Connecticut.....	none.		none.	
New York.....	25,575,570	1,713,000	27,588,570	1,391,992
New Jersey.....	none.		none.	
Pennsylvania.....	40,986,393		40,986,393	2,048,330
Delaware.....	none.		none.	
Maryland.....	11,966,785	1,376,891*	13,363,676	655,421
Virginia.....	7,384,794	1,476,295	8,861,089	641,746
North Carolina.....	none.		none.	
South Carolina.....	3,214,502	2,000,000	5,231,562	170,798
Georgia.....	1,727,760		1,727,760	109,296
Florida.....	3,900,900	950,000	4,850,000	294,000
Alabama.....	9,207,556	4,438,522	13,646,078	557,746
Mississippi.....	2,270,707	5,000,000	7,271,707	128,000
Louisiana.....	1,380,566	14,857,565	16,238,131	78,914
Arkansas.....	2,676,000	1,044,570	3,720,570	160,259
Tennessee.....	3,254,416		3,254,416	473,340
Kentucky.....	4,409,456		4,409,456	258,354
Ohio.....	19,251,180		19,251,180	1,140,707
Michigan.....	4,394,510		4,394,510	266,000
Indiana.....	15,072,080†	1,390,000	16,362,080	607,772
Illinois.....	14,533,969		14,533,969	712,533
Missouri.....	684,997		684,997	73,190
Texas.....	4,856,601	5,092,406	9,949,047	300,000
Total.....	\$179,634,022	44,368,805	224,023,827	9,930,052

* Arrears of interest due Dec. 1, 1845.

† Including \$2,777,220 arrears of interest up to Jan. 1, 1846, and \$1,204,760 of domestic debt, for which treasury notes bearing interest are now outstanding.

The total amount of the debts of the States, in 1842, was \$198,118,736. So that they have increased since that period almost \$26,000,000; but that, to be sure, includes a debt of about ten millions at the charge of Texas, which was not taken into account in the previous estimate. It also includes for arrears of interest about four millions.

COMMERCIAL JURISPRUDENCE.

PRIVATE PROPERTY TAKEN FOR PUBLIC USE.—IMPORTANT RAILROAD DECISION.

THE *manuscript* records of this case were politely furnished us by W. C. Smedes, Esq., one of the Mississippi Reporters, under the request of one of the Judges. It settles an interesting question in our jurisprudence with great ability, and is deserving of general attention and study. We commend it to our readers:

HIGH COURT OF ERRORS AND APPEALS OF THE STATE OF MISSISSIPPI. }
January Term, 1847. }

Patrick Donaher vs. The State of Mississippi.

THERE IS A NECESSARY EXCEPTION IN THE TITLE TO ALL PROPERTY—THAT IF IT BE WANTED FOR PUBLIC USE, IT MAY BE TAKEN FOR SUCH PURPOSE—PROVIDED THAT IN ALL CASES JUST COMPENSATION BE MADE TO THE OWNER.

The Statute incorporating the Jackson and Brandon Railroad and Bridge Company, passed the 5th day of February, 1846, gives power to the company to extend their railroad, so as to intersect or unite with any other railroad, terminating in or passing through the city of Jackson, provided the road be so constructed as not to interfere with the passage of any public street of said city; the statute of 1823 (H. & H. 60) reserves to the legislature the right to dispose of the entire two sections of land, designated by the commissioners to locate the seat of government (the city of Jackson), *except the streets*, and the lots which may be sold from time to time—*held* that the statute of 1823, vests the title to the streets in the corporation of the city, and deprives the legislature of the power to dispose of them, except so far as the *jus publicum*, or the rights of eminent domain may authorize it. The right to the streets, therefore, being in the corporation of Jackson, they cannot be subjected to the use of the railroad, without the consent and contract of the city, or without the assessment and payment of damages according to law.

Whether the owners of lots adjacent to the track of the railroad, would have any right to compensation for damages—*Quere?*

The corporation of the city, no doubt, has the power for the protection of its citizens and their property, to regulate the mode of propelling the cars within its limits—to say whether steam or horse power shall be employed, and to prescribe the rate at which they may move.

D. was indicted in the Circuit Court of Hinds county, for a nuisance in obstructing the streets of the city of Jackson; it was admitted that he had been grading and hauling dirt in the streets of Jackson, under the direction and authority of the Jackson and Brandon Railroad and Bridge Company, in preparing to lay the rails of the road; the defense set up was, that the act of 1836, incorporating the company, gave them the right to run their railroad through the streets of Jackson; and the defendant being in their employ, and doing only such grading and hauling as were necessary to make the road, was not guilty, as charged in the indictment: *held*, that the act of 1823 (H. & H. 60) vested in the city of Jackson the title to the streets within its limits—and deprived the legislature of the power to dispose of, except for public use, and then only upon just compensation—that the company had no right to run their road through the streets of the city, without the consent and contract of the corporation, or without the assessment and payment of damages according to law, and the defense set up, cannot, therefore, be sustained.

Error from the Circuit Court of Hinds County,
Hon. GEORGE COALTER, Judge.

This was an indictment preferred by the grand jury of Hinds county against Patrick Donaher, for a nuisance—in digging and subverting large quantities of

dirty in the streets of Jackson, and thereby obstructing the same. The defendant pleaded not guilty. The case was submitted to the court on the following agreed state of facts, to wit:—"In 1836, the legislature of the State of Mississippi passed an act incorporating the President and Directors of the Jackson and Brandon Railroad and Bridge Company, which is herewith referred to and made part of this agreed case." Then follows the act of incorporation, and also the acts incorporating the "Mississippi and Alabama Railroad Company," the "Southern Railroad Company," and the act to revive the "Jackson and Brandon Railroad and Bridge Company." The eleventh section of the first recited act is in these words, viz: "Be it further enacted, that the said company shall have the privilege of extending said road, and of constructing branches in any direction whatsoever, that they may intersect or unite with any other railroad, terminating in or passing through the town of Jackson, provided the said railroad be so constructed as not to interfere with the passage of any public street of said town—and so much of the land donated to the State by the act of Congress, passed the 20th of February, 1819, for the seat of government, as may be necessary for the passage of said railroad, and as may be selected by the commissioners with the consent of the Governor of the State, and which yet remains unsold, is hereby donated to said company during the continuance of this charter; provided that not more than one acre shall be so donated for the erection of warehouses, or a place of depot, and that said acre of said land shall be located only within two hundred yards of the place where said road shall pass the Pearl river." The agreement then proceeds thus: "It is farther agreed that all the foregoing acts, or any parts thereof, or any other act in relation to said railroad, whether mentioned in this agreed case or not, may be read as a part of this agreed case from the pamphlet acts as printed by the State printers. By virtue of these various acts, the said railroad company claim the right to extend the railroad from the termination of the Vicksburg and Jackson railroad through the city of Jackson to Brandon, and through the eastern part of the State, to connect with the Charleston railroad. It is further agreed, that the land on which the city of Jackson now stands, at and before the laying off of said city of Jackson, belonged to the State of Mississippi. By the act of—the city of Jackson was laid off by commissioners appointed by the State, into lots, with public streets, lanes, alleys, squares, &c. A plan of said city is herewith referred to and made part of this agreed case. It is also agreed, that all the acts laying off the said city of Jackson, or amending the same, shall be considered as part of this agreed case, and may be read from the statute book. It is also agreed, that the various acts of the legislature passed, incorporating the city of Jackson, and amending and modifying its charter, &c.; all of which acts are herewith referred to, and made part of this agreed case and may be read from the statute book. It is farther agreed, that the lots in the said city of Jackson were sold by authority of the State, according to said plan, and are held by individuals. It is farther agreed, that the President, Directors and Company of the Jackson and Brandon Railroad and Bridge Company, laid out the railroad to pass through Jackson to Brandon from the west side of State street, commencing at the point where the railroad from Vicksburg to Jackson has been completed to the piers on Pearl river, where the bridge is to be built, which route as laid off passes across State street in the city of Jackson, to and across South street; thence through part of an acre lot No. 1 South, into and down Commerce street to the lot on which the saw-mill is situated, whence said route passes through individual property—the right of way has been secured by the company. It is farther agreed, that Commerce and State streets are each one hundred feet wide, and South street eighty feet wide, through which streets alone the track will run. The track of the road will be twelve feet wide on the surface, and the rails will be five feet apart—the track when completed may be used by either horse or steam cars. The line of road on Commerce street, will be about a quarter of a mile in length, and about 120 to 125 feet on State street, and about 100 feet on South street. It is farther agreed, that the defendant was and is employed by said railroad company to grade the line of road through the city of Jackson, in pursuance of which contract he is digging and grading on said streets in said city of Jackson, over which said line of road, as laid off by said company, is to run. It is agreed that the acts of the said defendant in digging and grading said streets, constitute a nuisance in law, if said company have no power to run their railroad through and over the said streets in said city; but if said company has such power, then it is agreed that said acts are necessary to make said road through said streets, and do not construct a nuisance. It is farther agreed, that the lots in said city of Jackson,

situated on said streets, were sold by the State to individuals, some of which have been built on and improved; the said individual purchasers, purchased with reference to the plan of said city, and with a reference to the use of the streets, &c., in accordance with said plan. In running said road through the streets, the value of public and private property will be lessened to some extent—that is, to such extent as railroad cars, propelled by either steam or horse power, passing through a street, necessarily impair its use. It is farther agreed, that said streets have not been condemned, or damages assessed against said company for the right of way through them. It is also agreed, that the corporate authorities of the city of Jackson never agreed to, but resisted the right and power of the railroad company to use the streets of the city for the railroad. It is farther agreed, that if upon the foregoing facts the court shall be of opinion that the said company had the power and right to run said railroad through said streets of Jackson, then and in that case, judgment shall be entered up for the defendant. But if the court is of opinion that said company had no such right, then judgment is to be rendered for the State." The court was of the opinion that the railroad company had no right to use the streets of the city of Jackson in the manner claimed by them, and therefore rendered judgment against the defendant. To revise which, he has brought the case to this Court by writ of Error.

GEORGE S. YERGER for Plaintiff in Error.

WILLIAM YERGER for Defendant.

Mr. JUSTICE CLAYTON delivered the opinion of the Court:

The agreed state of facts contained in this record, presents this as the prominent question for investigation: whether the Jackson and Brandon Railroad and Bridge Company have a right to construct a railroad through the streets of the city of Jackson, without an assessment and payment of damages for such use of the streets.

The statute incorporating this company, passed February 5th, 1836, gives power to it, to extend its railroad, so as to intersect or unite with any other railroad, terminating in or passing through the city of Jackson, provided the road be so constructed as not to interfere with the passage of any public street of said city. There has been various legislation on the subject of this railroad since, but the above provision has been retained.

The statute of 1823 reserves to the legislature the right to dispose of the entire two sections of land, designated by the commissioners to locate the seat of government, *except the streets* and the lots which may be sold from time to time.—(How & Hutch., 60, sect. 11.—Poin. Rev. 486.) This vests the title to the streets in the corporation of the city, and deprives the legislature of the power to dispose of them, except so far as the *jus publicum*, or the right of eminent domain may authorize it. This right of eminent domain always exists, unless the State has absolutely parted with it, by grant. There is a necessary exception in the title to all property, that if it be wanted for public use, it may be taken for such purpose. But this is always upon the condition that just compensation shall be made to the owner. The principle has its origin in the common law (*The King vs. Ward*, 31 Com. Law Rep., 96); and is enforced by our constitutional provision, "that private property shall not be taken for public use, without just compensation." This principle applies as forcibly to the streets in this instance, as to private property in other cases. In the case of the Tuckahoe Canal Co. *vs.* the Tuckahoe R. R. Co., 11 Leigh, 76, the court says—"It is not perceived that the property of a corporation is less liable to the exercise of the *jus publicum*, than the property of a private individual. In both cases the private right must yield to the necessities of the public, and in both, the public must make compensation for the loss." This was a case of opposite franchises or easements.

In a case in 3 Hill's N. Y. Rep., 570, the court says—"The claim set up is an easement; not a right of passage to the public, but to the *company*, who have the exclusive privilege of using the track of the road in their own peculiar manner. The public may travel with them over the track, if they choose to ride in their cars; but, nevertheless, the company are not the public, nor can they be regarded as standing in the place of the public. They are a private company; an ideal individual, and to be treated as an individual" (*Presby. Soc. in Waterloo vs. Auburn and Rochester R. R. Co.*). That case arose in an effort to subject a public highway to the use of a railroad.

The progress of public improvement and the increase of trade and commerce may render changes in roads, streets, and canals necessary. An easement of one

kind may be made to give place to one of a different character, of more enlarged utility. Great and acknowledged public improvements lead to corresponding changes in the rights to be affected by them; accompanied, however, with the just condition of making compensation.

This case differs from that of the Lexington and Ohio R. R. Co. *vs.* Applegate et al., 8 Dana, in two essential particulars. The corporation there gave its assent to the use of the streets of Louisville by the railroad—2d, the owners of the lots there claimed compensation. In this case the corporation has not given its assent; and the owners of the lots are not before us. The right to the streets in this case being in the corporation of Jackson, they cannot be subjected to the use of the railroad, without the consent and contract of the corporation; or without the assessment and payment of damages according to law.

At present, we are strongly inclined to the belief, that the owners of lots adjacent to the track of the railroad, will have no claim to compensation. They have no right of soil in the streets; and the charter of the railroad company restricts the use to such bounds as will not interfere with the passage of the streets. Moreover the salutary maxim will apply to the company, that "they must so use their own rights, as not to injure another" (31 Eng. Com. Law Rep., 97; Dudley's So. Car. Rep., 138); this point, however, need not be decided. See 6 Peter's Rep., 514, *Barclay vs. Howell*.

We have no doubt that the corporation has the power to regulate the mode of propelling the cars within its limits, to say whether steam or horse power shall be employed, and to prescribe the rate at which they may move. This results from the same principle, which authorizes it to control the speed of carriages and of horsemen; the principle of necessary protection to the safety of its citizens and their property.

The defendant having failed in his attempted justification, the judgment is affirmed.

Mr. CHIEF JUSTICE SHARKEY, concurred.

Mr. JUSTICE TEACHER, dissented.

FOREIGN COMMERCE.

I.—CONSUMPTION OF WINES AND SPIRITS IN ENGLAND.

[From a paper prepared by Alderman W. Thompson, M. P.]

A return, showing the annual consumption of wines and spirits in England, has been procured by Mr. Alderman W. Thompson, M. P. It appears that last year (1846), 7,711,309 gallons of foreign wine were imported, of which 6,740,316 gallons were retained for home consumption. The quantities remaining under bond on the 5th of January, 1847, amounted to 9,386,262 gallons. It will be interesting to ascertain the relative quantities of different foreign wines which are consumed in this country. The 6,740,316 gallons of wine retained for home consumption last year included 365,867 gallons of Cape (this inferior compound, it is to be feared, is almost exclusively bought up for the purpose of adulterating other wines); 400,506 gallons of French wines, of all sorts; 2,669,798 gallons of Portuguese; 2,602,490 of Spanish; 94,580 gallons of Madeira; 64,578 gallons of Rhenish; 25,312 gallons of Canary; 283 gallons of Fayal, and 508,002 gallons of Sicilian and other sorts. It hence appears that the only three kinds of wine consumed to any great extent in England, consist of Port, Sherry, and Marsala (this last is Sicilian wine, grown on the Bronte estate of the late Lord Nelson), the large consumption of which is to be accounted for from the fact that it strikingly resembles Sherry. The small demand for Madeira will excite some surprise on the part of all who are acquainted with its exquisite flavor; nor do the quantities of Rhenish and French wines appear so large as might be expected from a consideration of their increasing consumption in this country. The total quantity of spirits retained for home consumption last year amounted to 4,254,237 gallons, out of 6,827,043 gallons imported, including 2,362,764 gallons of British colonial rum, 192,331 gallons of East India rum, 128,478 of mixed, 108 gallons of foreign rum (in all, 2,683,701 gallons of rum), 1,504,465 gallons of brandy, 39,883 gallons of Geneva, 7,281 gallons of other foreign and colonial spirits, and 8,907 gallons of Channel Island spirits; 5,310,148 gallons of all sorts remained in bond on the 5th of January, 1847, including 2,997,149 gallons of rum, 1,854,962 of brandy, and 89,302 of Geneva.

2.—STATISTICS OF IRELAND.

The population of the Emerald Isle is stated by a native writer at nine millions, being capable of sustaining double that number, according to Sir Robert Kane, were her wastes reclaimed, fisheries improved, agriculture promoted, and the resources of manufactures and commerce called into play.

The population is divided into 130 unions for poor paupers. The actual occupiers of land are stated at 883,097, with their families, constituting the one-half of the population. Of land-holders, 50,233 occupy between one and two acres; 35,863 between two and three; 45,135, three and four; 52,071, four and five; 86,478, five and six; 40,371, six and seven; 35,849, seven and eight; 32,178, eight and nine; 34,792, nine and ten; 186,555 from ten to twenty acres; 120,618 from twenty to fifty; 42,772 from fifty to a hundred; 15,468 from one to two hundred; 5,947 from two to five hundred; 1,127 from five hundred to a thousand; 284 from one to two thousand; 46 from two to three thousand; 11 from three to four thousand; 3 from four to five thousand; 6 above five thousand acres. Land-holders possessing less than one acre, 124,107.

Seven millions of the inhabitants are the Roman Catholics, and two millions Protestants.

3.—COMMERCE OF BRAZIL.

Comparative Monthly and Yearly Statement of Coffee, Sugar, and Hides, exported from Rio de Janeiro in the years 1844, 1845, and 1846.

	Coffee—Bags and Barrels.			Sugar—Cans.			Hides.		
	1844.	1845.	1846.	1844.	1845.	1846.	1844.	1846.	
January	129,125	128,968	180,722	344	402	229	25,943	3,149	8,500
February	95,817	93,080	114,317	685	301	632	27,210	25,463	40,425
March	111,302	90,178	87,637	734	364	561	34,378	15,974	56,128
April	98,369	82,019	73,107	907	772	742	28,227	32,872	49,800
May	69,792	71,008	121,010	95	681	256	31,512	30,907	37,311
June	79,908	63,167	86,460	743	543	356	26,422	20,928	11,085
July	73,231	109,687	137,923	791	460	156	34,202	22,144	18,288
August	73,165	87,878	145,254	721	523	—	15,626	19,020	59,556
September	121,204	109,326	159,004	310	1,156	127	29,818	18,012	60,578
October	119,956	127,408	178,308	948	1,681	1,262	11,871	7,580	28,040
November	140,669	98,519	94,905	26	1,575	223	25,595	11,993	13,667
December	155,739	130,528	192,570	88	1,181	224	46,690	3,790	47,741
	1,268,381	1,187,591	1,522,431	5,774	9,641	4,773	354,405	221,823	429,458

"The commerce between Brazil and the United States fluctuates very much from year to year, and the value of our imports from, and exports to, Brazil, was larger ten and eleven years ago than that of last year. Our imports from that country are about two hundred per cent. larger than our exports. Most of our exports to Brazil are domestic products. Since 1830, our commerce with Brazil has rapidly increased, and our imports now amount to about six and seven millions of dollars per annum, having in the past fifteen years advanced from two millions to those amounts. It thus appears that there has been a large per cent. increase. Our exports now amount to about three millions of dollars per annum, while in 1843, they amounted to only eighteen hundred thousand dollars.

"The tonnage engaged in the commerce between the two countries is principally American. For the year ending June 30, 1846, two hundred and sixty-four vessels, representing 61,014 tons, entered the ports of the United States for Brazil; and 227 vessels, representing 48,026 tons, cleared from ports of the United States for Brazil. So far as this part of the commercial intercourse of the two countries is concerned, we have the lion's share, but the balance of trade is annually largely against us, and the most extensive markets for the principal products of Brazil are found in the United States. The principal article of export from this country to Brazil is flour. The total value of domestic merchandise exported from the United States to that country, in 1846, was \$2,754,012, of which \$1,675,756 was in the single article of flour.

"Markets for our cotton manufactures, printed, colored, and white piece goods, are steadily increasing, but we have to contend against a powerful competition in similar goods of English manufacture. We receive no favors from the government of Brazil, in return for those extended by our government. The principal exporting staple of Brazil, coffee, enters our ports free of duty, while restrictions are placed upon all of our products entering their ports, of the most onerous character."

THE PUBLISHING BUSINESS.

1. HISTORY OF THE CONQUEST OF PERU, with a preliminary view of the civilization of the Incas. By Wm. H. Prescott.

"Congestæ cupulatur opes, orbisque rapinas accipit." Claudian in Ruf., lib 1, v. 194. 2 vols. New York: Harper and Brothers. 1847.

These able volumes which our distinguished historian has contributed to the press and to the world, have been received everywhere with great enthusiasm. The subject is full of deep interest, blended with the semblance of romance. In our next number we shall do ample justice to the volumes.

2. HALF HOURS with the best authors, by Charles Knight, in 2 parts. New York: Wiley and Putnam. 1847.

These "half hours" are embraced within two handsome numbers of Messrs. Wiley and Putnam's "Choice Reading." They contain complete and interesting passages from the best authors in the English Language, ninety in number, from the days of Spenser down to the present. A short biographical sketch of each of these numerous characters is appended. We know not where to find so much excellent material embraced within so small a compass.

3. THE HISTORY OF SILK, COTTON, LINEN, WOOL, and other fibrous substances; including observations on spinning, dyeing, and weaving; also, an account of the ancients, their social state and attainment in the domestic arts, with appendices on Pliny's Natural History; on the origin and manufacture of linen and cotton paper; on felting, netting, &c.; deduced from copious and authentic sources—illustrated with steel engravings. New York: Harper and Brothers.

This work has been published some months, but we are glad to take occasion of referring to it however late. The curious, antique, and learned information which it contains should make it a very popular one. Every one desirous of tracing the progress of manufactures should have it.

4. THE UNKNOWN COUNTRIES OF THE EAST. Messrs. Wiley and Putnam advertise a work in press with this title, by Aaron H. Palmer, Esq., New York. As Mr. Palmer did us the honor of reading to us several of the chapters, we can speak with confidence of the ability and value of the work. It will form a large 8vo. volume, embracing brief descriptions of the present state, productions, commerce, religions, languages, &c., of the following countries, drawn from the latest and most authentic sources: Comoro islands, Madagascar, South-east coast of Africa, Abyssinia, Arabia, Persia, Burmah, Siam, Cochín-China; the five commercial ports of China, Singapore, Sumatra, Java, Borneo, Celebes, Papua, Aroo, and Sooloo groups, and Philliping islands of the Indian Archipelago; Loo-choo islands, Corea, Japan, Yeso, and the Kurile islands, Island of Tarakia, or Saghalien, Manchuria, and the river Amur; Chinese and Russian caravan trade with Central Asia, viz.: Mongolia, Soungaria, Chinese Turkestan, Thibet, Ladak, Bokhara, Khiva, Kokhand, and Badakshan; Siberia, its valuable products and rich gold mines; Russian trade with China at Kiakta; Russian American Colonies on the North-west Coast; Oregon, California, Chili, Peru, Bolivia, Sandwich islands, Tahiti, Australia, New Zealand, &c., steam navigation on the Pacific, the practicability of constructing a ship canal through the Isthmus of Nicaragua, &c.

HUNT'S MERCHANTS' MAGAZINE.—"*Hunt's Merchants' Magazine, which is recognized in this country and in England as the best work of the kind ever published, and therefore a good authority to follow.*"—NEW YORK MIRROR, AUG. 30, 1847.

Mr. Hunt's September number is before us. Contents.—Art. I. The Bank Restriction Act, by H. C. Carey, Esq.; Art. II. Commercial Legislation of England; Art. III. The Railways of Italy, by C. Edwards Lester; Art. IV. Commerce of the West Indies; Art. V. Cuba and its Political Economy, by George Ditson; Art. VI. Jurisprudence of Michigan, by C. Townsend; Art. VII. Corporation of Trinity House; Art. VIII. Story's Treatise on the Law of Sales; with the addition of some forty pages of statistical matter, etc., such as is generally found in the work, taken from all sources, and giving it its great value. *What table can escape Mr. Hunt—from what paper, or place, or person?*

A compliment to this able work seems almost in bad taste. Shall one "gild refined gold?" Mr. Hunt requires nothing of this sort.

We gave at our head what the MIRROR says of our friend Mr. Hunt. Courtesy forbids us from introducing in the same paper what the MIRROR, a few days before, said of us. A friend at our elbow suggests, Won't you notice it at all? Notice what?

DE BOW'S COMMERCIAL REVIEW;

A MONTHLY JOURNAL OF TRADE, AGRICULTURE, COMMERCE,
COMMERCIAL POLITY, MANUFACTURES, INTERNAL IM-
PROVEMENTS, &c.

Published Monthly, in the City of New Orleans.

Terms \$6 per Annum, in advance.

Advocating the interests of the South and West, the COMMERCIAL REVIEW will not be the less mindful of the great interests of TRADE, COMMERCE AND AGRICULTURE throughout the World—Commerce in its various and multiform relations—in its History, its Laws, and its Statistics; Commercial commodities; regulations of Trade, inter-State and inter-National; Treaties; Foreign and Domestic Tariffs, Excises and Posts; Marine relations; Enterprises of Commerce, in SHIPPING, CANALS, RAILROADS and STEAM NAVIGATION, etc.; Mercantile Systems, Codes, Laws and Decisions, ancient as well as modern; Banking Insurance, Exchange, Partnership, Factorage, Guaranty, Brokerage, Bankruptcy, Wreck, Salvage, Freights, Privateering, Marque and Reprisal, Piracy, Quarantine and Custom House Regulations, etc., etc.; COMMERCIAL LITERATURE AND BIOGRAPHY.

PROSPECTUS TO THE THIRD AND FOURTH VOLUMES.

This work has been regularly published nearly two years. Its success has been signal throughout the whole SOUTHERN AND WESTERN COUNTRY, and its subscription list steadily and rapidly increased there and in other sections of the Union. In this brief period it has gained a larger circulation than any other Southern work, and the strongest influence. Complimentary letters and notices have been received from every source, even the very highest, as could be shown did space permit. The COMMERCIAL REVIEW has advocated and upheld the

Commerce and Agriculture of the Southern and Western States,
and exhibited from time to time their complete

STATISTICS,

in such a manner as could not but have secured the best results. The papers which have appeared upon SUGAR and upon COTTON, upon TOBACCO and RICE, and MANUFACTURES, upon THE PROGRESS OF OUR COMMERCIAL RELATIONS with all nations, and upon MEXICO, may be stated as examples. Indeed, this has been admitted from many sources. Although devoted in its aims to the development and exhibition of the

Resources of the South and West,

the Commercial Review neglects no view of

American and European Industry and Enterprise,

in every department, and must be of equal value to AMERICAN CITIZENS wherever they are found. Is there a section of the union, too, or an interest which has no concern with the progress and resources of the GREAT WEST, of which the Commercial Review is the faithful exponent?

From the Boston Daily Advertiser.

DE BOW'S COMMERCIAL REVIEW.—The number before us is the first of the fourth volume, being for the present month of September. Three volumes have accordingly been published, which, we learn from the table of contents, must contain a large fund of useful historical and commercial information, relating for the most part to the South-western and Western States, but a portion of it more general in its application. The work is printed in a style creditable to the press of Louisiana, and its contents are such as to render it a valuable adjunct to the similar work devoted to the commerce of the United States, published by Hunt, of New York, the merits of which are not likely to be overlooked or forgotten.

From the New York Evening Post.

DE BOW'S COMMERCIAL REVIEW.—This periodical performs for the South and West the same office which the Merchants' Magazine performs for this part of the country. It has already reached its fourth volume, and we learn that its circulation is rapidly increasing. The present number contains many valuable articles, among which is one by the Editor on the Progress of the Great West, full of interesting statistical information and speculations. It is to the credit of the mercantile class that works of this kind find encouragement among them.

From the New York Tribune.

THE COMMERCIAL REVIEW: BY J. D. B. DE BOW, VOL. IV. No. I.—It has original papers on the Dignity and Importance of Commerce; Progress of the Great West; Progress of American Industry; the True Functions of Government; Debtor and Creditor Laws of Louisiana; the Mission of America; and the Chicago and Memphis Conventions, by Hon. James Hall, Cincinnati, Hon. B. F. Porter, of Alabama, and other well-known writers, with a portrait of Stephen Girard, and a great amount and variety of commercial and industrial statistics. We rejoice that so good a work has been established at New Orleans, and apparently well established. It can hardly fail to secure patrons in every part of the country.

From the New York True Sun.

DE BOW'S COMMERCIAL REVIEW.—Much as we had heard and read of this celebrated New Orleans publication, it was not till the present week that we had an opportunity of making ourselves acquainted with its great merit. We were wholly unprepared to find in this magazine a work evincing so much ability and industry, and containing such a mass of information—commercial, statistical, historical, political, and philosophical. The number before us (for September) contains 142 closely printed pages of reading matter. Such a work, the reader will readily conceive, must be one of universal interest, deserving of unlimited circulation.

From the New York Courier & Enquirer.

DE BOW'S COMMERCIAL REVIEW for September has been upon our table for several days. This work is well worthy of attention, not only in the section of country in which it is published, but at the North, as it contains a great amount of very valuable information which cannot be found elsewhere. It is properly the complement of Hunt's Magazine, and in connection with that work, forms a complete record of mercantile and commercial facts. We commend it to the notice of our readers and to the favor of all who are interested in the commerce of the South.

From the N. Y. Herald.

COMMERCIAL REVIEW.—This is the title of a monthly journal of trade, commerce, commercial polity, agriculture, manufactures, internal improvements, and general literature, published at New Orleans by J. D. B. De Bow, and is well worth the attention of the merchant and the statesman. It is second to no other work of the kind in this or any other country, and must soon become authority for everything relating to matters of which it treats. We noticed among its contributors some of the most distinguished writers in the Union.

From the New Orleans Bee.

REVUE COMMERCIALE DU SUD.—L'excellente publication périodique de M. DE BOW fait à chaque apparition nouvelle de notables progrès sous le rapport de l'intérêt, de la variété et de la valeur des articles qu'elle renferme. M. DE BOW mérite les plus grands éloges pour avoir su réunir en faisceau des travaux aussi nombreux et aussi pleins d'intérêt. Il est difficile de faire aussi bien, presque impossible de faire mieux.

THE COMMERCIAL REVIEW

OF THE
SOUTH AND WEST.

ESTABLISHED JANUARY 1, 1846.

J. D. B. DE BOW, EDITOR AND PUBLISHER.

Volume IV.

NOVEMBER, 1847.

No. 3.

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EMBRACING THEIR POSITION AT THE PRESENT TIME, AND PROGRESS.

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No. 3.

Art. I.—STATISTICS OF SOUTHERN SLAVE POPULATION.

WITH ESPECIAL REFERENCE TO LIFE INSURANCE.

My communication in the May Number of your Review on "LIFE INSURANCE AT THE SOUTH," had reference only to the white population.* I now, in compliance with your request, give you a few remarks on the value of life among the colored population, which is becoming a very important subject for consideration. My time is much occupied with yellow fever, and I might very fairly claim indulgence for the hasty and imperfect manner in which I am performing my task; but I may, with still more propriety, offer as an excuse a deficiency of material, from the universal neglect of VITAL STATISTICS in the United States. We have already seen that there is by no means a redundancy of information as regards the whites; but the neglect, North and South, of statistics of blacks, is positively disreputable in this enlightened epoch.

Though there is a want of data, by which we can fix with accuracy the value of life among the colored population, there are still sufficient to show that insurance companies are going into this branch of their business pell-mell, without knowing anything of the probabilities. If I can bring them to a halt, and give a better direction to this part of the investigation, it is all I can now hope.

No one can be more fully alive than myself to the vast importance of insurance on negroes, to the South; yet, though I may be severely censured by some, I shall express myself freely without regard to the opinions of others, as I believe the truth alone can be beneficial on the whole. If risks on this class were taken alone by joint stock companies, formed of heavy capitalists who were disposed to gamble on the chances, I should have no objection to see a course of experiments which might lead to a discovery of the true value of life among the colored population; but it should not be forgotten that the life insurance companies now preferred are the *Mutual*, and that unless all the risks work well, the interest of every individual must be jeopardied,

- The article to which our friend Dr. Nott adverts, was a very valuable and interesting communication which should be read and studied by every insurance company and agency in the Union. It occupies a large space in the volume, and abounds with the most valuable statistics of life and mortality to be had in the Southern States. Dr. Nott will continue these valuable papers; and it is our purpose to aid him by the collection of material at the North wherever it can be had. These subjects are entirely new among us, and their full and elaborate discussion is very much a question of American interest.—EDITORS.

as *all* are stockholders under this system. Suppose, for example, 1,000 lives are insured in a mutual company, one-half whites, the other colored. If the risks upon the latter are badly selected, upon whom would fall the losses? Not upon the owners of the slaves alone, or rich members of the company, but upon the poor, honest, industrious, and I may add unsuspecting man, who at the end of the year scrapes together a few of his hard-earned dollars to invest in an insurance company, with the hope of saving his wife and children from beggary when he is no longer able to toil for them.

The data given in my former paper go strongly to prove that the acclimated population of our southern sea-ports *are taxed too high* for life insurance, and I hope I shall at least gain credit for honesty of intention if I now express my doubts whether we are taxed enough on the colored population.

The general fact that there is less mortality South than North among the colored class is sufficiently established; but there are no statistics by which the chances of life can be calculated with sufficient accuracy to form the basis of insurance operations in any city in the Union. At the South, vital statistics have been so neglected by local authorities, that, with the exception of Charleston, South Carolina, we are left wholly in the dark, and even here there has been a great deficiency of details. Within the last year or two, however, important improvements have been made in the manner of keeping tables of mortality in Charleston and Mobile, and we may in a few years expect important results.

Though the white and black races stand diametrically opposed to each other as to the influence of climate on health and longevity, and the necessity for so doing is manifest, yet in most cities no attention has been paid to separating the two classes in their bills of mortality. Even in the large cities of the North the bills of mortality are so badly kept, or so concealed from the public, that nothing can be ascertained on this point. I have made repeated but fruitless efforts to procure bills of mortality of the colored population from Baltimore, New York, and Boston. I have, however, been fortunate enough, through the kindness of Dr. G. Emerson (who has taken the trouble to ransack the records for me), to procure the bills of Philadelphia for 20 years.

I am really at a loss how to account for the silence of Boston on this subject. The statistics of that city, embracing everything which the statesman, physician, or philanthropist could ask, as births, marriages, deaths, sexes, occupations, ages, diseases, manufactures, etc., etc., are all given with admirable system and detail annually, and yet no allusion whatever is made to the mortality of the colored. I have before me the census for each year since 1840, and the last of them, viz., for 1845, is accompanied by a long and able report by Dr. Shattuck on vital statistics, making altogether an octavo volume of 300 pages, and yet not a fact can be found bearing on our subject. Can it be that the mortality of the colored population is concealed on account of its connection with the question of abolition? When I see the intelligence with which these statistics have been conceived and executed—when I see that these details were once carefully kept, and then of late years abandoned—and when I reflect on the improb-

ability of the importance of such facts being overlooked in a city like Boston, I cannot help indulging such a suspicion.*

I have on a former occasion, in the *Southern Quarterly Review*, discussed at some length the question of the unity of the races, and shall not here open that question again; but no one at all familiar with the past history of the negro and his present peculiarities, can entertain a doubt that he is now very widely separated, both in *physique* and *morale*, from the white man, and that it would require a combination of circumstances not likely to occur, and a long series of years, to bring him up to the Caucasian standard.

The extreme antiquity of Egypt as a civilized nation, taught by Champollion, Young, Vyse, Birch, and others, has not only been confirmed by the recent important discoveries of Baron Bunsen and Lepsius, but these gentlemen have fixed beyond dispute the epoch of Menes, the first king of Egypt, at more than 3600 years before Christ. It is equally well settled by the monumental history of that country, that the negroes existed at that early day with all the physical characteristics they now possess, and that they were treated and spoken of as slaves and barbarians. No one familiar with this discussion, will question these statements, and I think we may conclude that if the Negro has never, in the course of 5,000 years, been thrown into a position to develop his equality, we have no right to expect any great advance in the next few hundred years. The good old Bishop of Blois (H. Grègoire), in his work on the "Literature of Negroes," after exhausting the history of the past, has only been able to collect a few examples who had attained a certain degree of proficiency in the literature of the whites; but not one of them can bear comparison with the better specimens of the Caucasian race; and all attempts made in the present century at bettering the condition of the slaves have but added to their ignorance and unhappiness.

But, passing by the physical history of the negro in the old world, I shall confine myself to the influence of climate as exhibited in this country over this race, so far as it is connected with the subject of life insurance.

All testimony combines to establish the fact, that cold climates are most unfavorable to the health and longevity of the blacks; and as some of our readers may not be familiar with vital statistics, I will precede those of the colored class by tables, showing the mortality among the whites in various parts of the world, which may serve for comparison. The deaths from recent and authentic tables, were as follows:

STATISTICS OF MORTALITY—AVERAGE FOR ONE YEAR.

Boston	1 in 47	London	1 in 37
Philadelphia	1 in 43	Birmingham	1 in 36
England	1 in 45	Sheffield	1 in 32
France	1 in 42	Leeds	1 in 37
Austria	1 in 33	Bristol	1 in 32
Prussia	1 in 38	Manchester	1 in 29
Russia	1 in 38	Liverpool	1 in 28

I have not been able to get any tables from the towns in Canada,

* We should be greatly obliged to Dr. Shattuck for any information in these matters it may be in his power to give. This is a matter of universal interest.—Ed.

showing the mortality of the negroes. Rankin, in his "Visit to Sierra Leone," informs us, that the negroes who deserted their masters during the Revolutionary war, and joined the British army, were afterward colonized in Nova Scotia, but finding it impossible to stand the climate, they were removed to the colony in Africa by the British government. They there, in their state of liberty, showed their constitutional indolence and improvidence, and most of them have had the good fortune to be kidnapped and sold back to the United States. If I recollect correctly, Rankin states, that of 1,100 taken to Sierra Leone, but about 600 of them and their descendants remained at the end of thirty years.

As before stated, I have been unable to procure from Boston and New York tables exhibiting the mortality of the negroes for late years, but I have so often seen it stated at 1 in 15, and 1 in 18 respectively, that I presume, these figures may be assumed as substantially correct.*

Philadelphia may be placed intermediate in point of climate between the extremes of heat and cold in the United States, and we should accordingly expect to find here an intermediate mortality in this class. The tables below (furnished me by Dr. G. Emerson), when placed beside those of Charleston and Boston, will confirm such a result. As the climate on the gulf approaches still more closely that of the tropic, it is not improbable that the longevity of the blacks is still greater (as it certainly is of mulattoes) here, than in the city of Charleston. The tables of mortality for Charleston and Philadelphia are as follows:

MORTALITY OF CHARLESTON.

Years.	Whites.	Blacks.	Years.	Whites.	Blacks.
1830.....	1 in 39.4....	40.0	1838.....	1 in 18.3....	33.0 Y. Fever.
1831.....	1 in 46.6....	37.9	1839.....	1 in 29.9....	39.0 "
1832.....	1 in 51.9....	55.3	1840.....	1 in 50.7....	46.6
1833.....	1 in 55.0....	55.7	1841.....	1 in 65.1....	44.8
1834.....	1 in 42.1....	44.1 Y. Fever.	1842.....	1 in 50.3....	47.8
1835.....	1 in 43.1....	46.4 "	1843.....	1 in 60.8....	32.9
1836.....	1 in 40.6....	19.6 Cholera.	1844.....	1 in 69.3....	43.3
1837.....	1 in 47.3....	46.7	1845.....	1 in 52.9....	48.5

MORTALITY OF PHILADELPHIA.

Years.	Blacks.	Years.	Whites.	Blacks.
1821.....	1 in 16.9	1831.....	1 in 39.6....	33.6
1822.....	1 in 21.5	1832.....	1 in 28.8....	22.6
1823.....	1 in 17.5	1833.....	1 in 47.3....	35.9
1824.....	1 in 17.5	1834.....	1 in 41.4....	33.3
1825.....	1 in 27.0	1835.....	1 in 38.3....	31.2
1826.....	1 in 26.1	1836.....	1 in 43.8....	21.4
1827.....	1 in 18.9	1837.....	1 in 45.1....	32.7
1828.....	1 in 20.8	1838.....	1 in 45.0....	29.9
1829.....	1 in 23.7	1839.....	1 in 49.4....	31.3
1830.....	1 in 27.2	1840.....	1 in 52.2....	38.6

It appears from the above tables, that the average mortality in Philadelphia, among the colored population, was 1 in 26, and in Charleston, 1 in 44. Certainly a very marked contrast, and there can be no doubt, that, could the free colored be separated from the slaves,

* If there is any one who has information to the contrary, we would gladly welcome the facts.—Ed.

the latter in Charleston would show a still more favorable result.* There is a considerable number of mulattoes, and free colored in Charleston. The mortality in Philadelphia has been decreasing among both whites and colored, no doubt from the improved condition of the city.

I have marked above the years in which Yellow Fever prevailed in Charleston, and it will be seen that the mortality in those years among the negroes was lower than among the whites, on account of their exemption from this disease. In my former article, I gave evidence of the fact, that the mortality from this disease falls on the *unacclimated whites*.

I have given in the above tables the mortality of whites and blacks together, in each city, in order to contrast the influence of climate on the races. The greatest mortality ever known in Charleston, in the colored class, was in 1836, when it was raised by the Cholera to 1 in 19—more than double the average; but even Cholera and Slavery combined, here, are far less destructive to the negro, than liberty and climate in Boston, where the mortality is said to average 1 in 15.

To arrive at a fair estimate of the mortality of this class in northern and southern cities, we must take into consideration, not only the influence of climate, but social condition also. (The negro, is by nature indolent and improvident, everywhere and under all climates; and has nowhere in a state of freedom shown a high degree of longevity, or prolificacy, though by nature the longest lived, I believe, of all the human family.) These facts should not be overlooked in estimating their mortality at the North, where they are enjoying all the abstract delights of liberty. In the West Indies, we have a strong illustration of the effect of emancipation, and in their native state, in Africa, the average longevity of the blacks (as in all barbarous nations) will be less than among our slaves. In our northern States, where they, to a great extent, fail to provide against the severe winters, the diseases arising from cold and want must add much to their misery and mortality.

History cannot point to any epoch, or spot on the earth, where the condition of the negro race, either physical or moral, has been at all comparable with that of the slaves of the United States. Mr. Lyell, who seems to have reflected much and honestly on the evils of slavery, during his last visit to this country, expressed to me decidedly his conviction, that the negroes could only be civilized through slavery. They are here brought into forced contact with a civilized race, from whom they imbibe new and more enlarged ideas—they are taught a rational religion—many learn to read and write—all are taught the agricultural, or mechanic arts, or some other useful employment—they not only become more intellectual, but improve in physical appearance; and if they are capable of civilization at all, they are thus admirably prepared for a farther advance. Their progress has certainly been infinitely more rapid than it could have been

* We have the authority of Dr. Niles, then a citizen of New York (now of Paris), in a pamphlet published by him in 1827, for giving the mortality of Baltimore in 1823-24-25, as follows—Whites, 1 in 44; free blacks, 1 in 32; slaves 1 in 77-8. This result is probably attributable to two causes—1st, there is a large proportion of mulattoes among the free colored; 2d, the physical wants of the slaves are better supplied, and they are infinitely more cheerful and happy than the free colored.

under any missionary or colonial system. Mr. Lyell thinks, from all this, that they may be brought up to the Caucasian standard, but if he will live among them as I have, and study well their history, from the palmy days of Egypt down, he will find abundant reason to change this opinion. The races of men, like animals in a wild, uncultivated state, may, if docile, be tamed, educated and vastly improved, but there are limits set to each by nature, beyond which no advance can be made. Although there may be an occasional example where a negro will show a degree of intelligence and capacity for improvement beyond the mass, yet no negro has ever left behind him any intellectual effort worthy of being preserved. The negro is naturally mild and docile; the Indian, on the contrary, is an untamable, carnivorous animal, which is fading away before civilization, in spite of the efforts of missionaries. Can any man who knows anything about the present condition of the Indians and their past history, propose a scheme for their improvement, which would offer the least prospect of success—the race must soon be extinct—even the pure blood Mexicans, who I have no question are a different race from the aboriginal savage, are going down in darkness to their long home.*

The negro will reach, I may say *has* reached, his highest degree of civilization, and emancipation has so far only proved what I think is inevitable, that when removed from compulsion he relapses into barbarism. The Indian can be made to do nothing “on compulsion”—he would rather die than be a slave.

When a race (as the negroes) has had possession of a continent for at least 5,000 years, and no monument stands to designate a single civilized spot—when we see that it held constant intercourse with Egypt in her glory—when, too, we see the result of all recent experiments of abolitionists—I think we may safely conclude, that the negro attains his greatest perfection, physical and moral, and also his greatest longevity, in a state of slavery. The single fact of the longevity of the colored class in Charleston is a very significant one, and should be pondered on by the philanthropist. The colored population of this city show, not only a lower ratio of mortality than any laboring class of any country, but a lower mortality than the aggregate population (including nobility and all) of any country in Europe, except England, with which it is about on a par, and would surpass even England were the slaves taken separate from the free colored. The mortality of the aggregate colored population of Charleston now is less than that of the aggregate of any *town* in Europe.

That the negro, even when placed under the most favorable circumstances, as to physical wants, &c., is unfavorably affected by cold climates, is a fact which admits of no dispute. All the hospital practitioners of the Northern cities must acknowledge the fact. So sensitive are they to cold, and so little are they affected by that fell-destroyer of the white race, *malaria*, which kills more than war and famine, that they suffer in the Southern States more from diseases of winter than those of summer. They are, I am informed, exempt

* The Peruvian and Mexican, the most civilized races found in America, had smaller heads than the savage tribes. How did their heads get smaller by cultivating their intellects, if they are the same race with the latter? This is a question I should like to see solved.

from the violent congestive fevers of our interior districts, and other violent forms of marsh fever; and so exempt are they from yellow fever, that I am now attending my first case of this disease in a full-blooded negro. In fact, it would seem that the negro blood is an antidote against yellow fever, for the smallest admixture of it with the white will protect against this disease, even though the subject come from a healthy northern latitude, in the midst of an epidemic. There are some exceptions, but they are rare. I will not fatigue the reader by an elaborate comparison of the diseases of the two races, as influenced by climate, but will allude to a single one—consumption.

In Charleston they have but recently commenced separating the white and colored population in their bills of mortality, with full details, and I have the deaths from consumption in the latter class for but one year, viz.: 1846; but the ratio of deaths from this disease is so uniform, that it fluctuates but little when undisturbed by epidemic diseases. In Charleston the deaths from consumption in 1846 were 1 in 7 of all the deaths; and in Mobile the average for the three years 1844-'45-'46, the ratio was 1 in 8, in the colored population.

The following extract is from the "New York Medical and Surgical Reporter," February 27, 1847:

"*Colored Home.*—The report of the resident physician, James D. Fitch, M. D., for the year ending 1st January, 1847, is just published. By the tabular account of the inmates during that time, which specifies the sex, age, history and diseases of all who have come under the supervision of Dr. Fitch, we find that the total number in charge, during the year, was 464, and the number of deaths, 89. * * * The disease most prominent is consumption, by which more than one-half of the deaths have been caused, the number being 47," &c.

Now, how near this astounding mortality from consumption may be to the general result of other years in New York and Boston, I have not the data to determine. I can only say, that I have no disposition to plead one side, but, on the contrary, would be very glad if some gentleman of the North would give me, or the public, all the information possible. Why do they not give us the facts fully?

The combined influence of climate and social condition is again illustrated by the comparative increase of the colored class North and South. It has been already stated, that the *whole* population of Philadelphia, including white and colored, in the decennial period from 1830 to 1840, increased 35 per cent., while the colored, taken alone, shows an increase of but 18 per cent. From the constant escape of negroes from the slave States, and the protection offered them in Philadelphia, we should have expected a different result. I will here introduce an extract, bearing on this point, from my article in the Southern Quarterly Review, January, 1846, on the Unity of the Human Race.

It occurred to me that one of the best methods of testing the influence of climate on the negro race, would be to ascertain the relative proportion of children, in different States, to the free colored women between 15 and 45 years (the fruitful age). I have accordingly constructed the following table from the census of 1840, in which is given all the free colored children under 10 years, and the colored females as near as possible. The census gives the free colored females between 10 and 24, between 24 and 36, and between

36 and 55. I have, therefore, taken half of the aggregate of the first and last, and added this amount to the whole of those between 24 and 36, which must give a sufficiently near approximation to the truth.

I have, in the fourth column of the table, placed the per centage of excess or deficiency of children compared with the females; and the excess or deficiency in each State is expressed by placing the sign *plus* or *minus* before the number expressing the per centage.

I have confined these statistics to the *free* colored population, because they are the most stationary; and similarity of habits and other circumstances, render them the fairest test. There are some irregularities in these statistics which are difficult to explain, but if we take the aggregate of sections, or any rational view of the matter, I think they are not unsatisfactory. I give them for what they are worth, hoping they will at least lead the way to other observations.

	Number of free colored women between 16 and 40 years.	Free colored children under 10 years.	Percentage of excess or deficiency of children under 10 compared with the females.		Number of free colored women between 16 and 40 years.	Free colored children under 10 years.	Percentage of excess or deficiency of children under 10 compared with the females.
Maine	280	296	+ 5	Georgia	515	802	+55
New Hampshire ..	117	107	- 9	Alabama	406	572	+40
Massachusetts ...	1,782	1,807	+ 1	Mississippi	269	409	+50
Rhode Island	850	673	-26	Louisiana	5,892	8,178	+38
Connecticut	1,836	1,902	+ 3	Tennessee	999	1,854	+95
Vermont	156	167	+ 7	Kentucky	1,276	1,984	+55
New York	12,511	12,040	- 3	Ohio	3,558	5,190	+43
New Jersey	4,374	5,853	+33	Indiana	1,348	2,370	+75
Pennsylvania	11,687	12,509	+ 7	Illinois	696	1,084	+55
Delaware	3,207	5,358	+33	Missouri	298	345	+15
Maryland	13,727	18,548	+35	Florida	177	216	+23
Virginia	10,457	15,857	+53	Arkansas	81	144	+77
North Carolina ...	5,507	7,666	+39	Michigan	148	173	+17
South Carolina ..	1,776	2,795	+57	Dist. of Columbia	2,161	2,376	+ 9

The only line which can be drawn across the United States without intersecting States, is one about thirty-six and a half degrees of latitude, which very nearly bounds on the north, North Carolina, Tennessee, and Arkansas. The States of North Carolina, South Carolina, Tennessee, Arkansas, Georgia, Alabama, Mississippi, Louisiana, and Florida, are all south of this line, and the other States all north of it. From the abundance of provisions, the absence of malaria, the protection here given to the colored class, we might reasonably infer that they would be most prosperous and prolific in the northern division. The southern division comprises all the most sickly portions of our country, and the free negroes have less liberty and indulgence than at the North. A calculation made from the above table gives but about 25 per cent. more children than females in the northern division, while in the southern the excess is 44 per cent. The New England States alone show 3 per cent. less children than females of the child-bearing age.

By the census of 1800 there were in the New England States, of all ages, 17,317 free colored, and in 1840 there were but 22,633, or an increase only of 5,316 in 40 years! If climate and social condition have nothing to do with this result, I must leave it to others to show what becomes of the natural increase, and of the colored immigrants constantly coming in.

But, had we all the data necessary for fixing the value of life in the pure whites and blacks, another question arises with regard to the longevity of the mixed bloods or *mulattoes*. This question presents many ramifications, which are not only curious, but deeply important to the philanthropist. It has been more fully treated in some of its bearings than I have room for here, in the article alluded to in the Southern Quarterly, and I now shall merely touch it so far as it is connected with the value of life. Whether it be primitive or not, the white and black races are to all intents and purposes *specifically different*, and it is our business now to treat them as we find them in reference to our subject.

A writer in the Boston Medical and Surgical Journal, Nov., 1842, under the signature of "Philanthropist," who seems to be an earnest seeker after truth, uses the following language:

"From authentic statistics and extensive corroborating information, obtained from sources to me of unquestionable authority, together with my own observations, I am led to believe that the following statements are substantially correct:

"1st. That the longevity of the Africans is greater than that of the inhabitants of any other part of the globe.

"2d. That mulattoes, *i. e.*, those born of parents one being African and the other white or Caucasian, are the shortest lived of any class of the human race.

"3d. That the mulattoes are not more liable to die under the age of 25 than the whites or blacks; but from 25 to 40 their deaths are as 10 to 1 of either the whites or blacks between those ages; from 40 to 55, the deaths are as 50 to 1; and from 55 to 70, 100 to 1.

"4th. That the mortality of the free people of color is more than 100 per cent. greater than that of slaves.

"5th. That those of unmixed extraction in the free States are not more liable to sickness or premature death than the whites of their rank and condition in society; but that the striking mortality so manifest among the free people of color, is in every community and section of the country invariably confined to the mulattoes.

"It was remarked by a gentleman from the South, eminent for his intellectual attainments, and distinguished for his correct observation, and who has lived many years in the Southern States, that he did not believe that he had ever seen a mulatto of 70 years of age.

"From a correspondence published in the Boston Spectator, in April last, are taken the following statistics:

"In a colored population of 2,634,348, including free blacks, there are 1,980 over 100 years of age; whereas there are but 647 whites over 100 in a population of 14,581,000.

"In Boston, the number of deaths annually among the colored population is about 1 in 15, and there are fewer pure blacks in this city than any other. The same comparative mortality between mulattoes and blacks exists in the West Indies and in Guiana, where unfavorable social causes do not operate against the mulattoes as in the United States."

Though they do substantially, my observations at the South will not fully corroborate all the above conclusions of "Philanthropist." My belief is that the mulattoes *do* die more than whites or blacks under 25, as they *certainly* do above this age, and that the pure

blacks are destroyed by cold climate as well as the mulattoes, though the latter may be most sensitive.

I will here give the results of my own professional observation during 20 years at the South, which I feel assured time and experience will substantially confirm. The facts were forced upon me during my intercourse with the colored class, and attracted my attention long before I had formed any theory on the subject, and at a time when my convictions were the opposite of what they now are.

1st. The mulattoes are intermediate in intelligence between the blacks and whites.

2d. They are less capable of enduring fatigue, exposure, and hardships of all kinds, than either blacks or whites.

3d. The mulatto women are peculiarly delicate, and more subject to a variety of chronic diseases peculiar to females.

4th. The women are bad breeders and bad nurses—many do not conceive, and most are subject to abortions, or premature births.

5th. The two sexes, when they marry, are less prolific than when crossed on one of the parent stocks.

6th. The specific difference of the races is strongly illustrated in the exemption of the negroes from yellow, and congestive fevers; not only the negro, but the quarteroon, though a native of a cold latitude, is to a great extent exempt; there are occasional exceptions, and it is well known that yellow fever, like cholera, has often been fatal to domestic animals.

The above facts, which I think will in the main hold good in all the Atlantic States, and are more marked the farther north we look, would seem to be contradicted to a considerable extent, if not wholly refuted by an opposite state of things on the Gulf. I hope the contradiction, however, will prove to be only apparent.

The mulattoes, by which I mean all grades of mixture, derived from the early population of Pensacola, Mobile, and New Orleans, and who are a mixture principally of French and Spanish blood with that of the negro, present very different physical characters from the mulattoes seen in the Atlantic States, who are derived mainly from the Anglo-Saxon race. The complexion on the Gulf of the colored creoles (as they are called) is a strong copper, or bronze of different shades, which is agreeable to the eye, and strikingly different from the chalky, sickly hue of the others; they excite at once in the mind the idea of a *new*, or *distinct race*—are well formed, more robust and hardy, and their features often regular and handsome, partaking little of the contour of the negro; they are also much more prolific and long-lived than the mulattoes of the colder States. A stranger coming to Mobile, or New Orleans, could not fail to be forcibly struck by the physical peculiarities of these colored creoles, many of whom resemble so closely certain Mongol tribes, as to give strong support to the suggestion of Dr. S. G. Morton, that the latter *may* possibly be a mixed race of Caucasians and negroes; an idea which will be much strengthened by his remarks on the influence of climate on hybridity. Their hair is often as straight, black, and glossy as that of the Chinese or Indian—the high cheek bone, and obliquity of the eyes is not uncommon. In looking over the well-executed heads in Richards' physical history of man, I can find no type of the colored races of

the *old world*, as the Mongol, Hindoo, Malay, &c., of which I have not seen a good imitation in real life, among the colored creoles of Mobile and New Orleans—but it is remarkable that they show *no resemblance to the aborigines of the new world*—these stand out from the rest of mankind, as Dr. Morton's *Crania Americana* will show, as boldly as a new and distinct creation.

It is perhaps a difficult task to account for the above differences between these creoles and the mulattoes of colder climates; it is possible that a reason may be found in certain affinities or repulsions of certain races, which fits or unfits them for perfect amalgamation. The population of Germany, France, Spain, Italy, England, Ireland, and Scotland, is such a heterogeneous compound at the present day of aborigines, Celts, Slavonians, and Germans, that there are now endless disputes as to the original physical character of each of these latter races; and as to the blood which now predominates in each country. The modern Britons, and the Germans, from whom they are principally descended, are usually much more fair in complexion than the French, Spaniards, Italians, Russians, Poles, &c., who, Lawrence and others, maintain, are derived from the Celts, and Slavons, of dark skin, hair and eyes. Explain the fact as we may, it is to my mind evident that negroes amalgamate much better with the dark than the fair races.

When we reflect on the specific differences between the two races (Caucasian and Negro) and the many peculiarities which belong to the mulatto, I think we are justifiable in regarding the latter as a hybrid. I have shown on a former occasion that naturalists have been able to lay down no rule which could offer the slightest objection to this idea. We have shown also that different hybrids are subject to very different laws; some are prolific and others not, &c. Why may it not be a law of the human hybrid, that it is a more delicate, less hardy, and long-lived than the parent stocks? there are facts in natural history which lend support to this idea.

Dr. Morton, the distinguished author of the *Crania Americana*, and *Egyptica*, in a paper read last November before the Academy of Natural Sciences in Philadelphia, on "hybridity in animals and plants, considered in reference to the question of the unity of the human species," gives us some interesting facts, which may account more satisfactorily for the distinctive character of the mulattoes North and South. After showing that not only different *species*, but *genera* produce prolific hybrids, he gives facts to prove that climate has much to do with the fecundity of certain hybrids; they may not breed, for example, in a cold climate, but will in a warm one, which is more congenial to their nature. Such would seem to be the case with the mulatto or hybrid offspring of the Caucasian and Negro races; the facts can be clearly established that the mulattoes (the colored creoles at least) of Mobile and New Orleans, are more prolific, more hardy, longer lived, and in every respect a superior race to those of the North. My observations for some years were made on the mulattoes of South Carolina, and even as far South as this, their inferiority is manifest.

The facts and deductions thus far presented would lead very strongly to the conclusion that the black slaves of the South are very

safe risks for insurance ; but though fully persuaded of the favorable position of this class, both as to climate and social condition in reference to health and longevity, and though deeply impressed with the importance of this branch of life insurance to the slave States, still I must say that I believe there are yet no data by which the value of these lives can be fixed with sufficient accuracy to justify the thoughtless procedure of some companies.

The mortality among the colored class in Charleston, including blacks, mulattoes, slaves, and free, is 1 in 44 annually ; and though this is a more favorable table than can be found in any laboring class in the world, and though even this mortality might be greatly diminished could we separate the free and the hybrids from the black slaves ; yet it must be remembered that among the whites it is only the better class that apply for policies ; and that the negroes are the laboring class of the South. It is a well-known fact, that as you rise in the scale of society so does the longevity increase, simply because the upper classes are less exposed to the causes of diseases, and can command comforts and prompt medical advice in sickness. The experience too of insurance companies in Europe, shows that there is far less mortality in their selected lives, than in the aggregate population of a nation. It cannot be reasonably expected, then, that the slaves at the South can equal in longevity the better classes of Europe, or the selected lives of insurance companies.

The black slaves, though generally treated with kindness and indulgence, are the laboring class—are exposed much to the causes of disease, and are less protected in sickness than the higher classes ; like the man-servant and maid-servant of the free States, they are less cared for in sickness and health than the master and mistress. The longest lived class in England are the nobility ; and though poverty in itself may not be a sin, it is not only a disgrace, but tempts many a poor fellow to sell soul and body both.

“ Lord lead us not into temptation,” is the wisest prayer ever uttered—it contains a profound reflection on human nature. Men are prone to become very good and pious when they get too old to be tempted, and we should therefore pray daily not to be tempted. Life insurance on negroes offers strong temptations to be feared, many of which I have not time to enumerate.

When a company insures the life of a free man, it has the best of all guaranties against foul play, viz.: the innate love of life of the insured party. But on the other hand, we occasionally see at the South unfeeling masters, as we do unfeeling husbands, cruel fathers, and cruel masters to apprentices, in the free States ; and such individuals will not show any increase of kindness during sickness, should their interest be opposed to humanity. As long as the negro is sound, and worth more than the amount insured, self-interest will prompt the owner to preserve the life of the slave ; but, if the slave become unsound and there is little prospect of perfect recovery, the underwriters cannot expect fair play—the insurance money is worth more than the slave, and the latter is regarded rather in the light of a super-annuated horse.

Human nature is the same everywhere, and at all times. See how the English manufacturer coins his guineas out of the exhausted

frames of his wretched operatives—after one set of victims is worked to death, another is at hand ready for the sacrifice. So with the Southern masters, though their slaves, as a general rule, meet with more kindness than any laboring class in the world; yet when it ceases to be the interest of the owner to preserve the life of the slave, he will in many instances cease to be careful of it. Any man who will drive a horse cruelly, will drive a negro or operative to death, if he can gain anything by so doing.

Suppose a thousand slaves to be insured for seven years, and at the end of one, two, three, four, or five years, a portion of them should become unsound, and it is no longer the interest of the owners that they should live out the seven years; would not many be like the Yankee Captain with the insured ship, "damn the old hulk, let her sink—I am safe." That "Almighty Dollar" would soon silence the soft, small voice of humanity.

We have every reason to believe that many unsound negroes would be insured fraudulently, which could be easily done—and it is a singular fact, that the negroes who will nurse the master with untiring devotion and kindness, night and day, are like dogs, utterly regardless of each other's wants in sickness—this is a characteristic in freedom or slavery.

It would be unsafe to insure negroes on plantations in the country, because it is impossible, I fear, to get competent and reliable medical examiners, and for other reasons. Most of the applications would probably be from the towns. It has not been, nor do I think it is likely to become, the custom of masters to insure slaves, except in those instances where they suppose some extraordinary risk to life is incurred, and if such risks alone be taken, the chances must be against the underwriters. I will mention for example the fact, that most of the negroes presented to me for insurance, have been deck-hands of steam-boats, who, besides the danger of being blown up, are exposed to other dangers much greater; at one moment they are employed as firemen, and at the next, they are rolling cotton bales down the river bank at midnight in a cold rain. Many are consequently attacked by pleurisy, and other acute diseases—they are not unfrequently seriously injured by blows from the cotton bales while rolling down the high bluffs, and lastly, they often become intemperate, and contract other bad habits which lead to disturbance of health.

Since the above was printed we have received the following letter from Dr. Nott, which is worthy of attention :

THE SLAVE QUESTION.

Mobile, Sept. 20, 1847.

With what intense anxiety are the eyes of the whole country fixed upon the meeting of our next national assembly? Do we not all feel that we are on the verge of a struggle which must shake the Union to its very foundations? The social position of the negro race, and its influences on the various sections of the country, is to be discussed, and, in my opinion, most of the leaders of public opinion, North and South, are wholly unprepared to meet the great difficulties which complicate this subject; and the facts I have here and on former occasions alluded to, call loudly upon the attention of the statesman, the patriot, and philanthropist. All the reasoning and action of legislators heretofore have been deduced

too much from the history of the Caucasian race, as if the question were settled that the white man and negro are essentially the same, and demand the same course of policy. When we ask for *facts*—for some clear light of experience, drawn from the history of the past, to lead us out of the labyrinth in which fate has placed us—we are answered by the sentimental abstractions of the closet. But, Mr. Editor, these great difficulties cannot be met and overcome by abstractions. We must look to the natural history of the races for light; and I have no hesitation in asserting, that nothing wise—nothing productive of substantial good to the negro race—can be effected without a full knowledge of their physical and intellectual character.

Can humanity look without a shudder upon the reckless impetuosity with which demagogues and fanatics decide great questions like this, involving the lives, fortunes and happiness of millions of human beings, without the slightest knowledge of those facts which are indispensable to the formation of a rational opinion? The angry and senseless discussions on negro emancipation, which have agitated Christendom for the last half century, were commenced in ignorance, and the abolitionists have only become more angry and unreasonable, as facts have risen up against their theories.

It has become evident that this controversy, as now conducted, must lead to consequences fraught with evil both to the white and black races. Is it not time, then, that good and wise men should rise up, inform themselves thoroughly, and, looking the difficulties full in the face, adopt such a course as reason and humanity shall dictate?

The object of the honest abolitionist must certainly be, to better the condition either of the white or black races. How are the whites to be benefited? What the distant future may bring forth, human sagacity cannot foretell; but we know that all great and sudden changes in the policy of a country must be productive of distress; and no one can doubt that emancipation of the Southern slaves would, for a long series of years, be followed by utter destruction of the great staples of the South, and a corresponding destruction of the manufacturing and other interests of the North. It would not stop here; but the older nations who are fed by our commerce would suffer, even more perhaps than ourselves. Should such consequences be hazarded without good and sufficient reasons? But how are the blacks to be benefited by emancipation? This is the great point on which the controversy should turn. Where are we to look for light on this point, either in the history of the past or in the teachings of the present day? Will some abolitionist talk to us sober sense and reason, and demonstrate some plan by which the negro can be made free, prosperous and happy? I am a slave owner, and while on the one hand I shall, in common with the Southern people, resist all encroachments on our constitutional and natural rights, I am, on the other hand, free to say that I am ready to advocate any scheme of emancipation which will insure to the slaves of the South greater happiness than they now enjoy. Every candid and intelligent man, who has examined the facts, must acknowledge that the negroes of the Southern States are infinitely better off than those of Africa, all of whom are the slaves of barbarian chiefs; that they are in a far better condition, morally and physically, and more happy, than those of the free States; that they are in every respect in a better condition than the emancipated blacks of the West Indies; and that African colonization, and the long and painful labors of missionaries, have so far resulted in no good.

Whether the negro be of distinct origin—whether he be a descendant of Adam, changed by the long-continued action of physical causes, or whether the Almighty has, by a direct curse, blackened his skin and clouded his intellect, it is not our intention here to inquire; but it cannot be denied that the negro *now* presents peculiar physical and intellectual characters. We must, therefore, take him as we find him, and for all practical purposes it is immaterial which theory we adopt. The true questions to be decided are—To what position among mankind is he *now* best suited? and, to what position more exalted can time and experience elevate him?

Though many contend that mental cultivation, continued through several generations, may greatly improve a race, no one of our authoritative writers on the natural history of man, whether Christian or Infidel, whether advocating or opposing the unity of the human race, can be found to maintain the intellectual equality of the black and white races.

Experience teaches that none but an intelligent people are fit for any form of government short of an absolute despotism, and it is difficult to imagine how the negro is to be sufficiently enlightened to qualify him for self-government. He

cannot be educated to any extent while a slave, because he becomes unfit for slavery and dangerous to the master. (He cannot be liberated and allowed to remain where he now is, because a large population, so indolent, improvident and vicious as free negroes everywhere are, could not be tolerated in any country. Could Alabama, for example, permit her 300,000 slaves to be freed and turned loose within her borders? And I would ask the States north of the Potomac, if they would vote for the emancipation of three millions of slaves, with the "proviso," that when liberated they should all settle at the North? I have no doubt that the abolitionists of the North would sooner vote that all the tribes of Africa should be turned over to the devil without benefit of clergy. Self-preservation equally forbids that such an idea should be entertained for the Southern States.)

But one scheme, then, can be seriously entertained, viz.: that of colonization, and it is much to be desired that some one would give us a project by which these millions of ignorant, stupid negroes can be successfully colonized, and kept from relapsing (as they are rapidly doing in St. Domingo) into African barbarism. The experiments in colonization, and even the gigantic efforts to suppress the slave-trade, have so far been productive of nothing but evil; and we have every reason to believe, that (if the negro can be so improved as to qualify him for self-government, a long series of years will be required to effect such a result.) The monumental history of Egypt, according to recent researches of Bunsen, Lepsius and other learned hierologists, shows, beyond dispute, that the negro presented the same physical and intellectual characters 5,000 years ago that he does now; and how long, may it be asked, will it take to bring him up to the Caucasian standard? I deny, positively, that there is any evidence in the history of the past, or the experience of our own times, to prove that the brain of a race can be enlarged and the intellect expanded by cultivation through a series of generations.) The skulls of the untutored Germans of antiquity—of the Greek peasants—of the ancient Britons, and of the wandering Circassians, who are now bidding defiance to the Emperor of Russia, are as well formed as those of the nobility of England of the present day. Baron Larrey, whose authority will not be questioned in this matter, tells us that the wandering Arabs have the finest formed brains he ever saw. The Caucasian head is always ready formed, and when the spark is applied the intellect blazes forth. Wherever this race is brought under a good government, great men spring up from the very forests. Can any one believe for a moment that the genius of Alexander, Cæsar, Napoleon, Hannibal, Newton, La Place, Cuvier, Shakspeare, &c., is attributable to cultivated ancestry? No—the same blood has been coursing through the veins of the race from Adam down to the present day.

But let us suppose, for a moment, that the negro really is susceptible of progressive improvement. Where is the nation willing to devote the time and money necessary for the perfection of three millions of negroes? Will Old England? No. Will New England? No. They may both be ready to sacrifice both the whites and blacks of the South on the altar of false humanity, but neither will stretch out his hand to offer substantial aid in the cause.)

I must bring this hasty letter to a close, but hope I have said enough to make apparent the paramount importance of *negro statistics*. If the blacks are intellectually inferior to the whites—if the whites are deteriorated by amalgamation with the blacks—if the longevity and physical perfection of the mixed race is below that of either of the pure races, and if the negro is by nature unfit for self-government, these are grave matters for consideration. These conclusions I solemnly believe to be true, and that full investigation will only tend to confirm them; and I may add, that my conviction is the result of much personal observation and careful perusal of every work of note on the natural history of man in the French and English languages.

(The negroes have attained a greater moral and intellectual elevation—greater physical development and longevity, and incomparably more happiness, in our slave States, than they have ever enjoyed under any other circumstances.) Every feeling of humanity, then, and every motive of policy, should bid us handle gently a question of such extreme delicacy. We have yet no light to guide us safely in a change; and as we know that the Southern people are responsible to God alone for their sins, and that it is his hand at last that rules the destinies of nations, it would be better, far, to leave this question to the slow but certain work of time and experience.

Yours, &c.,

JOSIAH C. NOTT, M.D.

PHYSICAL AND MORAL CONDITION OF BLACKS, NORTH AND SOUTH.

BY THE EDITOR.

We have lately taken some pains in examining the reports of 1845, 1846, and 1847, of the *Prison Discipline Association*, kindly furnished us at the office in New York, in the hope of finding statistical information which might be of value in connection with the subject of the above article; but, unfortunately, the same fault may be found with these reports as with all others, that they do not sufficiently discriminate between black and white. However, such facts as we could gather after a search of a thousand pages, we present. They pertain as much to the morals as the longevity of northern negroes.

MORTALITY OF PHILADELPHIA.

Penitentiary.

Years.	Whites, per ct.	Blacks, prct.	Years.	Whites, per ct.	Blacks, perct.
1830.....	4.19.....	0.....	1821.....	2.31.....	5.92.....
1831.....	4.18.....	10.02.....	1822.....	2.39.....	4.65.....
1832.....	1.44.....	13.52.....	1823.....	2.96.....	5.71.....
1833.....	1.11.....	0.....	1824.....	2.85.....	5.71.....
1834.....	.8.....	6.68.....	1825.....	2.36.....	3.70.....
1835.....	1.26.....	4.61.....	1826.....	2.48.....	3.82.....
1836.....	.99.....	6.74.....	1827.....	2.11.....	5.29.....
1837.....	3.....	6.49.....	1828.....	2.29.....	4.81.....
1838.....	2.92.....	11.80.....	1829.....	2.27.....	4.22.....
1839.....	.81.....	4.62.....	1830.....	2.20.....	3.68.....
1840.....	3.88.....	8.02.....			
1841.....	1.97.....	4.61.....		24.22.....	47.51.....
1842.....	1.41.....	9.03.....			
				2.42.....	4.75.....
	27.24.....	86.14.....			
	2.09.....	6.62.....			

"It will be perceived," says the Report of 1845 (from which this table is taken), "that these numbers are to each other in the proportion of 1 to 1.96. That is, out of 1,000 of each color, residing in the city, 196 blacks die for every 100 whites; and for every 1,000 of each color in the Penitentiary, the astonishing number of 316 blacks to every 100 whites. Returns from the Philadelphia County Prison, for the last ten years, show that out of 101 deaths in that establishment, 54 died of consumption. Of these, 40 were colored, and 14 white."

In the Weathersfield Penitentiary, from March 1841 to March 1844, the average of deaths was 2.82 for whites, 10.96 for colored. Eastern Penitentiary, Pennsylvania, for three years, ending 1843, 1.85 per cent. deaths, white; 6.63 black. In the Philadelphia prison for ten years, ending 1845, white prisoners, 1,179, black, 1,089; deaths, white, 1 in 46; black, 1 in 12. The whole admission of convicts in the Eastern Penitentiary of Pennsylvania, from October 1829 to December 1845, was 2,054, of which 692 were black, or about one-third! This frightful immorality and crime of the black population will be understood when it is reflected how small a proportion of the population of Pennsylvania, or even of Philadelphia, it embraces. Extraordinary as it may seem, in 1840 very nearly 140 per cent. of the inmates of the same prison were colored! "Perhaps," says Dr. Ginon, the physician in charge, in his report, "the most striking feature is the great disproportion between white and colored deaths—a disproportion that has engaged the attention and sympathy of some of our most enlightened and benevolent citizens, and given rise to various hypotheses. If my experience, &c., justify, I would say, without hesitation, it is owing entirely to their utter neglect of the necessary means of preserving health, extreme sensuality, &c. This opinion I believe myself in possession of sufficient facts to substantiate," &c.

In 1845, Mathew L. Bevan, Esq., President of the Eastern Penitentiary of Pennsylvania, adverts again to the subject: "The increase of deaths comes from blacks. This increase of mortality is found in the fact that those colored inmates, from the county of Philadelphia, are so constitutionally diseased, as under any and all circumstances to be short-lived, from their character and habits. They die of constitutional and chronic disorders, which are general among their order, owing to the privations they undergo, and the want of proper attention in infancy, and their pecu-

lar mode of living." Mr. Bevan concludes: "*Indulging in the use of ardent spirits, subjected to a prejudice, which bids defiance to any successful attempt to improve their physical or moral condition, from youth to manhood, sowing the seeds of disease in their constitutions, and at last becoming inmates of prisons.*"!!!

These sad and mournful pictures from a city like Philadelphia, where the blacks might be supposed as favorably situated as freedom could make them, are worthy of deep contemplation. If, after a period of so protracted freedom, their condition has, so far from improving, sunk lower and lower, beyond measure lower than in any city where the institution of slavery exists, it would seem full time for blind and raving sentimentality to come to its senses, and let alone what it is incapable of meddling with without mischief. If, however, the "*equality*" of the negroes North, South, and East is the point, *degrade the Southern*, or what is the same thing, as Philadelphia shows, *free them, and you have the desired result.*

We introduce a few more facts from the Prison Discipline Reports. In the New York Penitentiary, 1846, there were 788 whites, 96 blacks, or 1 in 8. The blacks in New York do not exceed, if they equal, 1-50 of the whole population. In the City Prison the blacks were about 20 per cent., or 1 in 5 $\frac{1}{2}$. The reader will understand what is the relative proportion of black and white population in the city of New York. At Sing Sing, 1846, there were 854 inmates, of which 193 (1 in 4 $\frac{1}{2}$) were black. One seventh of the commitments of that year were black. Of the committed, 400 were intemperate—110 being blacks. Number of deaths in prison among blacks, in 1846, were 29—4 being of consumption, and 7 rheumatism.

Dr. Welch, in his report of 1844, says: "It also appears from the records of the State Prison of Connecticut that, since the commencement of the institution in 1828, *half of the deaths have been among the blacks, amounting to 5.40 per cent., whites, 1.07 per cent.*" He also refers to the authority of Dr. Nott, of Mobile, in support of his opinion that *the blacks at the North possess "less vitality than the whites."*

We regret that our data at this moment are so incomplete. They, however, present some food for reflection. One might think that our friends and fellow-citizens at the North would have enough to do to look after the condition of their own affairs, instead of troubling themselves with ours. We do not envy them their occupation in either case.

ART. II.—RIVER AND HARBOR IMPROVEMENTS.

THE CHICAGO CONVENTION.

THE proceedings of the great Convention at Chicago last summer of friends to River and Harbor Improvements by the Federal Government have been fully spread before the country, and all who chose to become acquainted with them will have done so ere this article is printed. The grounds of agreement and of difference among those who attended the Convention, though not very clearly defined in the proceedings there had, are tolerably obvious to the practical observer. On the one hand, the bare assemblage of the Convention—especially when we consider how numerously it was attended, from what distances and by what men—affirms the duty of the Federal Government to *do something* in the premises, and the inference can hardly be deemed a forced or far-fetched one if we say that it affirms farther, the duty of doing something *more* than has hitherto been done. For, assuredly, the citizen who believes that our rulers have done and are doing all that is fairly incumbent on them with regard to Rivers and Harbors, will have slender temptation to spend time and money in attending a Convention at a point remote from his residence to consider the subject of River and Harbor Improvements

and memorialize Congress concerning them. For it is not, surely, to be presumed that honorable gentlemen would attend such a gathering with the sole purpose of embarrassing its deliberations and distracting its councils. The fact, then, that some five to eight thousand citizens, including many of the most eminent and the most worthy, many from localities more than a thousand miles distant, convened at Chicago on the 5th of July, 1847, to deliberate and act on the subject already stated, is in itself of decided significance, and the conclusions of a body so constituted can hardly fail to exert a palpable influence on the public sentiment and legislation of the country. These conclusions are clearly and forcibly set forth in the resolutions of the Convention, mainly drawn by Hon. John C. Spencer, but agreed on first by an able committee of two persons from each State and Territory represented—about thirty in all—selected in nearly equal numbers from the two great political parties, and whose unanimous report was affirmed with nearly equal unanimity by the Convention. The resolutions, so drawn and passed, embody an argument in support of the constitutionality and justice of a comprehensive and vigorous prosecution of River and Harbor Improvement which has rarely been excelled, if ever equaled.

On the other hand, it cannot be denied, and need not be disguised, that differences of opinion with regard to the proper extent and limitations of National River and Harbor Improvement were developed at this Convention; and these differences we now propose to consider.

On the side of a liberal and comprehensive appropriation of the public moneys to the improvement of Rivers and Harbors, there appears to be no disagreement, no hesitation. The resolutions of the Convention state the views taken on that side more clearly and forcibly than we could express them in so few words. Briefly, however, it is maintained on that side, that the Federal Government ought to prosecute the improvement, for purposes of commerce, of the harbors which line our coasts (whether seaward or inland), and the more important rivers within our national limits, so fast as the state of its finances will permit, and so far as the common interest and general welfare of the whole people shall seem to demand. But to this end it is not deemed essential that each particular River or Harbor Improvement shall be essential to the well-being of the *entire* people, any more than that each ship-of-war constructed and maintained, or soldier employed and paid by the government, shall have been engaged in the defense of the whole country. In the narrowest view, it may be said that the safe and easy navigation, even of the Mississippi, is of no moment to the people of Vermont; while there is a larger and truer aspect, wherein whatever increases production, diffuses wealth and facilitates intercourse in any section of the Union, is desirable and beneficent to every portion of it. But admit that the rendering navigable, so far as may be, of a single river like the Illinois, or making accessible and safe the single harbor of Chicago, may not be of obvious interest to the whole country; still, the simultaneous improvement of *all* such rivers and harbors, so far as a provident statesmanship and wise economy would justify, may be the clear dictate of national policy and public good. Thus regarded, each single improvement appears but a link in a golden chain

of benefits and blessings, admirably calculated to bind together, indissolubly, the States composing this vast republic.

On the other side, the agreement on any general principle—much less on any clear line of policy—is not obvious, as a brief glance at the indications afforded at Chicago will show. For example—

Col. Benton, by letter, denounces vehemently the proneness to importune Congress to aid in the furtherance of “local or sectional objects;” yet strongly affirms the constitutionality and propriety of a national canal from Lake Michigan to the Mississippi; and, of course, of other works of like character and importance.

Gov. Wright, by letter, has like fears of the diversion of the national funds to objects purely local, but is favorable to harbor improvements at those points “where the convenience and safety of Lake commerce” demand them. River improvements afford to his mind a subject of far greater difficulty; yet he has no doubt at all that appropriations for *some* river improvements are constitutional, while others are not. The line of distinction he indicates, without positively affirming it, is this: “where commerce upon a river already exists, and is regularly carried on in spite of the obstructions sought to be removed,” there improvements may be deemed constitutional; in other cases, not. But finally, *Mr. W.* concedes that “this is not a sufficient dividing line for practical legislation,” but he favors us with no other.

Mr. David Dudley Field, of N. Y., in a speech before the Convention, controverted what is termed the “general welfare” or “lax construction” doctrine with regard to internal improvement, and has, since his return, written out his remarks for the Democratic Review, being moved thereto, it appears, by a pressing note from the Editor. Having listened to that speech when delivered, we regret our inability to identify the uttered remarks with the printed essay, and the more that the speech seems to have suffered in cogency, without gaining in perspicuity in the transfer from Chicago to New York, and from living breath to inert metal. *Mr. Field* flatly contradicts *Col. Benton* with regard to the power of the Federal Government to construct canals; he favors us with long and pains-taking disquisitions on the nature and true character of our government, with very liberal citations from the “resolutions of '98,” and many ponderous documents unheard of at Chicago; but when we have read them all we are nearly as much in the dark, as to the kind of a River and Harbor bill that *Mr. F.* would vote for, as if he had not spoken at the Convention. We hear quite enough of the “difference between one who construes the Constitution strictly, and another who construes it loosely,” “enlarging the incidental powers of Congress,” &c., &c., but little or nothing that is tangible on the material point. The burden of his speech is this same offensive and supercilious assumption, “We who think as I do are the faithful upholders of the Constitution, which you who differ from us would heedlessly and selfishly override and destroy;” but what projected improvements are constitutional, and what are not, in *Mr. F.*'s opinion, it were a task indeed to gather from his deliberately written version of his Chicago speech. Now this seems less excusable inasmuch as, while the written speech is much longer than that actually delivered, it

omits all account of the questions put to Mr. F. while speaking (intended to bring his views plainly within the apprehension of his hearers), and his replies thereto, together forming by far the most interesting portions of the whole. He barely states in his printed report, that he was subjected to "interruptions," which were "in bad temper and worse taste," and that he will make no farther allusion to them. Now the interruption of a speaker by questions *is* in bad taste at all times, and we would be the last to excuse it, though in this case no "bad temper" was manifested. But suppose there *had* been—would that have justified the suppression by the speaker of his most pregnant and pointed remarks on the occasion referred to? Have not his readers a natural desire and right to hear how his doctrines bore the ordeal of familiar and practical application? Believing that they have, let us here endeavor to supply from memory the questions put to Mr. F. while speaking, with his responses as given, viz.:

1. *Voice from the Convention.*—Do you deem constitutional an appropriation for improving the Illinois river?

Mr. F.—It runs through *two States*, does it not?

Voice (amid a general shout).—No, only one.

Mr. F.—Then I *do not* consider it constitutional.

2. *Another Voice.*—Do you hold the improvement of the *Hudson* river constitutional?

Mr. F.—*Below a custom-house*, I do.

3. *Another Voice.*—Is an appropriation for Chicago harbor constitutional?

Mr. F.—If there was a harbor here originally, I do; otherwise not.

Such, to the best of our recollection, were the questions by which the stream of Mr. F's eloquence was interrupted, with his replies. Let us consider their bearing on the general subject before us.

All appear to agree, that *some* rivers and harbors may be rendered more practicable for the purposes of commerce, without violence to the Constitution. Mr. Field certainly assents to this, by his bare presence at Chicago, if no otherwise. All agree also, that there is a limit somewhere to the sphere of Constitutional appropriation for these purposes; that, to use Mr. Benton's phrase, "harbors that harbor nothing but the interest of their projectors" are *not* within the sphere referred to. The question which actually divides us, therefore, is one of detail rather than principle—of less or more, rather than of something or nothing. Mr. Field's parade of extracts from the Convention, Debates of 1787, and the Virginia and Kentucky Resolutions of '98, seems plainly irrelevant, since he does not deny utterly the power to improve rivers and harbors, until he shall clearly draw the line between appropriations he deems constitutional and unconstitutional respectively. This we find only in the answers to questions so carefully omitted from his reported speech. Let us examine them.

1. A river which runs through two or more States may be constitutionally improved, though the same river if running through one State only, could not be. Is not this distinction arbitrary and without just foundation? Here are the Connecticut and Hudson, running parallel with each other, of nearly equal length, but of very unequal worth and importance. One of them runs through two States, and for a long distance divides two others—is in fact their boundary for

nearly, or quite the entire length of each; while the other commences and completes its course within the territory of a single State. Yet the improvement of the latter has frequently and properly claimed the attention of the Federal Government, its navigation affecting the commerce of half the Union, while the former is of far more limited consequence. Instances might be multiplied of the rule indicated by Mr. F., but can that be needed?

2. So of the Custom-house touchstone. Here is the Passaic, a stream of obviously local character and usefulness, with a Custom-house at Newark, near its mouth. But the people of Paterson, ten miles higher up, naturally desire that ships should be able to reach and discharge at their wharves, and seek national aid for their enterprise. Their first step, if the validity of Mr. F.'s distinction be established, is to procure the passage of an act declaring Paterson a port of entry, whereby one obstacle to their success is removed, though their stream remains what it ever was, of local, not national concern. On the other hand, suppose the Treasury Department shall decide that no public purpose is subserved by the Custom-house establishments at Albany, Pittsburgh, Cincinnati and St. Louis, commensurate with the cost of maintaining them, and thereupon directs their discontinuance—shall that be held to render the improvement of the Hudson, Ohio and Mississippi, henceforth unconstitutional? Would not the national necessity for improving the navigation of those rivers have existed and been palpable, although a Custom-house had never been created above the mouth of either?

3. Equally mistaken seems the criterion intimated by Mr. F. with regard to the constitutionality of Federal expenditure on the harbor at Chicago. Let us suppose there had previously existed half a dozen good harbors on Lake Michigan, so situated as reasonably to accommodate the commerce of that lake, who would seriously contend that an appropriation for Chicago would be constitutional *per se*? But suppose on the other hand (what was the fact), that there was not a single natural harbor on all the coasts of Lake Michigan, six or seven hundred miles in extent, and that the large and rapidly increasing commerce of several States on that lake was exposed to peril and destruction in every storm, and denied the needed facilities for shipping and discharging, can it be doubted by those who believe *any* Harbor Improvements constitutional, that the construction of at least one copious haven on that lake would be so, even though it had to be scraped entirely out of the solid earth? Suppose it were the fact, that the coast presented no indentation whatever, but the gentle, imperceptible curve of a perfect circle from one end to the other—would the circumstance which rendered the construction of a harbor most imperatively necessary, at the same time forbid such construction, at least by the government which has exclusive power over commerce between the States, and exclusive right to derive revenue therefrom? Is it not plain that the rule here indicated by Mr. Field, diminishes the power of the government in direct proportion to the increase of the necessity for its exercise? Let there be a harbor at any important point almost as good by nature as is required, and its improvement by Federal appropriation would be rightful; but let the necessity for such appropriation be absolute and unmitigated,

and the constitutionality of making it is denied! We need hardly say, that the same objection in substance applies to the distinction as to River Improvements taken by Gov. Wright. This may be ever so strict construction, but is it strictly consistent with common sense and the public good?

Let us, in closing, urge upon those on whom, in the approaching Congress, may devolve the duty of framing a River and Harbor bill, to discharge that duty patiently, liberally, justly, and with a single eye to the common good. Let them take care that no item that cannot bear its own weight, however trifling in amount, is allowed to creep in for the sake of securing a vote, or silencing an adversary. Let a bill be framed of which every item *ought* to pass, and we have strong hopes that it *will* pass. It is a deplorable truth, that appropriations for useless or pernicious ends—to construct cumbrous fortresses and needless ships of war—to pay and feed cormorant armies in time of profound peace, or rob an Indian tribe of lands which it needs, and we do not—will pass in a day, with hardly an opponent and never a constitutional scruple; but whenever a dollar is asked for any purpose of positive and enduring beneficence—to promote directly the well-being of our own people, rather than threaten or carry destruction to others—there arises all manner of caviling, hair-splitting, scruple-devising, as if the mere purpose of the measure were *prima facie* evidence of intent to subvert the Constitution. In the apprehension of a formidable class of Political philosophers, fidelity to the Constitution involves a vigorous adherence to every ledge and sand-bar which presented an abstract to navigation in 1787, and the fate of our institutions is bound up in the preservation of our overslaughts and rapids in rivers otherwise navigable. “Snags, sawyers and the constitution for ever!” is virtually the war-cry of that school of expounders, who never scruple to stigmatize all who differ from them as ready to overthrow every bulwark of our freedom in their reckless pursuit of personal or local aggrandizement. Ought this style of argumentation to pass unrebuked? Can it suffice to overbear the dictates of National progress and Commercial necessity?

H. G.

Art. III.—SUGAR—ITS CULTIVATION, MANUFACTURE, AND COMMERCE.

No. II.

DEFECATION OR CLARIFICATION—ACTION OF LIME AND HEAT—USE OF NUT-GALLS, SULPHATE OF ZINC, ALUM, DIACETATE OF LEAD, ELM BARK, &C.—FILTERS—EVAPORATION—ANIMAL CHARCOAL—CONCENTRATION OF SYRUP—VACUUM PROCESSES—HIGH AND LOW TEMPERATURES—PROOF ACIDS—ALKALINE, ALBUMINOUS SYRUPS—SMEAR—COOLERS—SKIPPING OR STRIKING—POTTING—THEORY OF CRYSTALIZATION—CURING HOUSES—STATISTICS OF SUGAR PLANTATIONS AND RECORDS—CONDITION OF THE BRITISH WEST INDIES—THEIR RELIEF—ABOLITIONISM.

In our last paper we examined into the physical and chemical con-

stituents of sugar-cane and its various products, the means of extracting the juices by machinery, and the merits of different processes. We now proceed to other heads of our general subject.

Since the issue of the October No. we have received a letter from an intelligent Louisiana sugar planter now in Europe, who contributed to our pages last year an inestimable article upon the manufacture of sugar. In reply to our inquiries, he remarks, "I have notes in Paris of value, comprising references to what I have read, and statements of what I have seen and heard on a subject so interesting to me as the sugar culture and manufacture, and have collected everything of any value that has ever been published on the subject. I think I shall be able to give you, on my return, another article on sugar, which will interest our planters."

We also received from Mr. Valcour Aime, one of our most liberal and extensive planters, an interesting letter, which we are sure, in so good a cause, he will excuse us for making public. It will be found in one of the latter pages of this Number.

But we resume our labors, making, as in our last paper, the valuable work of Dr. Evans, of London, the basis of observations. It is the latest scientific treatise upon the subject, and important, as giving the results on the English plantations, and in the manufactories of the metropolis. As these papers proceed, we shall examine the results in all other countries, as well as in our own.

The *defecation*, or *clarification* of cane juice, is the first process after its extraction, though in many of the English colonies it is dispensed with. Where it is conducted, the juice is received from the mill into cisterns, or cold receivers of copper or wood, lined with sheet lead, to remain there until the clarifiers are ready. These receivers are, however, being abandoned, as Dr. Evans tells us, and the juice passes directly to its destination.

The *clarifiers* are shallow copper pans, of circular form—flat, or arched slightly upward at bottom, and capable of containing 250 to 500 gallons. Each is suspended over a different fire-place, supplied with dampers to regulate the combustion of fuel, &c.

When the juice has attained a sufficient temperature, say 140°, lime is applied. It is usually slaked by water; clarified cane-juice or syrup being sometimes previously admixed, it is thought, with good results. The quantity of lime used is regulated by experiment on the juice, in wine glasses, in each of which different quantities of it are introduced.

After this application, the cane-juice is well stirred, and heated gradually to boiling, or until a scum appears upon the top, which cracks and breaks, exposing the clear liquid. The fire is then extinguished, and the juice left "to remain undisturbed until the remaining feculencies have subsided." It is then allowed to pass out into the grand copper receiver. A *double clarification* is sometimes resorted to, one by heat only, and the other with heat and lime. *Filtration* by mechanical means is frequently practised as a previous step.

The action of heat upon cane-juice is to coagulate and render insoluble the vegetable albumen involved with the flocculent particles. That of lime is more difficult of explication. If tried in a glass, it

changes the color to bright yellow, separating the liquid into a precipitate of impurities, and the clear juice.

Lime saturates any free acid it may meet with in the cane-juice; it sets free a small quantity of potash; it forms an insoluble compound with a portion of the caseine, which is either precipitated, or which rises to the surface in the scum; it combines with three times its weight of sugar—the substance produced being very sparingly soluble in cold, and still less so in hot water; it deepens the color of the juice.

When the cane-juice contains a small quantity of lactic and acetic acids, an event which occurs more frequently now than formerly, owing to the want of a sufficiency of labor to hasten the stages of the manufacture, the lime combines with those acids, and forms uncrystalizable salts, which preserve a portion of the sugar with which they may be in contact in a fluid state.

Should a small quantity of glucose be present in the syrup, which is always the case when concentration has been conducted as it now is in the colonies, the lime, probably assisted by a small quantity of potash which has been set free, speedily converts it into glucic acid; and the glucates, when formed by the prolonged action of the heat, are as quickly converted into melasينات of the same bases, and the whole syrup is thus rendered of a dark brown or black color.

Cane-juice, defecated as judiciously as possible by means of lime and the application of heat, throws down a farther precipitate, on the addition of a little diacetate of lead.*

The lime should be as pure as possible—being burnt, and slaked immediately after with boiling water, and strained through a sieve.

Before applying lime, the juice is tested with *litmus* paper, which is changed by it from blue to reddish-purple. At 130° milk of lime is applied, cautiously at first, and then adding to the quantity until no farther reaction upon the litmus is observed. The heat is then applied till perfect ebullition for two or three minutes. If the clarifier contains 300 gallons, the first proportions of lime will be from four to six ounces. If the quantity of lime be not sufficient, the grains will be light and small—if too great, the complexion of the sugar will be darker, but bolder grains. The vessels should always be of copper.

There are other chemical modes of separating sugar from its impurities, each with different degrees of merit and demerit. That by *nut-galls* it is said may be followed to advantage when the juice is viscid, without increased acidity. When the *sulphate of zinc* is used, the defecation is very complete; but being a virulent poison, the process is attended with danger. Twelve ounces are applied to 300 gallons cane-juice, and milk of lime to render neutral. Bag filters are then used for straining. *Alum* possesses great advantages, together with the evil that it leaves sulphate of potash, or nitre, combined with the juice, which is deleterious. The *sulphate of alumina* possesses extraordinary advantages over other chemicals. It leaves the liquor colorless, and the sugar beautiful. It is used in the manufacture of beet-root sugar, in France. The process is thus explained by Dr. Evans:

This substance is employed in the way just described for alum. It does not contain potash, but is composed of alumina and sulphuric acid only. The proportions required are about one pound to every 100 gallons of juice; but twice, or even thrice that quantity may be given with advantage. We must be careful, however, to neutralize the liquor, thus treated, as quickly as possible with milk of lime, otherwise some risk would be incurred of converting a portion of the sugar into glucose. Every pound of the sulphate of alumina will require about

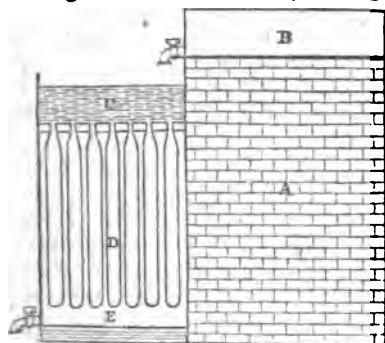
* Evans, pp. 97, 98.

seven or eight ounces of caustic lime to effect its decomposition; but a slightly additional quantity may be given in all cases, beyond what is merely necessary, although the liquor may thereby be rendered slightly alkaline.

Sulphuric acid is advised, either upon juice that is viscid, or, in the technical phrase, which is burnt. *Diacetate of lead* was proposed in England, and a patent taken out for its use some years ago. But a double clarification is necessary, with, of course, loss of time and labor. It was tried in the English colonies, and the resulting sugar, to some extent from mismanagement, produced serious effects upon all who used it. *Wild elm bark* has been successfully resorted to in Martinique and Guadaloupe.

Subsequent *filtration* of cane-juice after its defecation is commended for several reasons—that is, if it has been allowed to boil. 1. Less trouble in regulating temperature. 2. Ebullition, which is essential to the complete coagulation of the albumen. 3. Economy of time, the liquid running immediately after boiling into the filters. 4. The increase in quantity of liquor. 5. Complete separation of solids, and more transparent juice.

Filters which are used for mere mechanical impurities, are strong calico bags, eighteen inches wide, and three to five feet long. These bags are introduced into others of canvas, of the same length, only six inches wide. Tubes then run from the cistern to the mouths of the bags, around which they are tightly closed.



Thus in the annexed diagram, B is the clarifier; C is an upper cistern; D shows the case of filters attached to C; E is a lower cistern, receiving filtered liquor and discharging it into the copper, if possible. If the juice has not been previously filtered, a wire sieve should be placed in C.*

The process of clarification being completed, the next in order is *evaporation*, or reduction to the state of syrup.

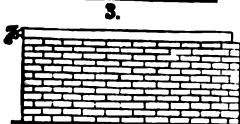
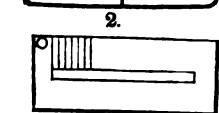
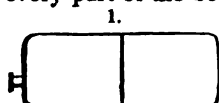
The liquid has passed into the coppers—hollow spheres—arranged in order on the same surface, and over one fire. This method was used in India from all antiquity. In these coppers the liquid undergoes renewed defecation, evaporation, and concentration, simultaneously. Dr. Evans shows that to do these effectually by this means is impossible, and that injury must arise in some of the processes. The plan would not have been so long retained in the colonies had there been a demand for finer sugars. To remedy its evils, the following modifications and changes are suggested :

1. Remove the *teche* ; place the fire under the second copper ; let the four coppers constitute exclusively the evaporating apparatus. The juice passes first into the one most distant from the fire, and successively into the others, being skimmed and ladled until reaching the density required. Pass it then into charcoal filters, or into a cis-

† Evans, p. 111.

tern prepared to receive it, or into the concentrating vessel. This process would not increase the expense of machinery, but megass fuel must be used to pass the flame far enough, and a greater expense of fuel and labor is required.

2. Another modification is proposed. Substitute for the coppers a large, flat-bottomed vessel of cast iron or copper, oblong shape, with angles rounded off, divided into two equal apartments by a metal plate, containing a valve. The flame must come in contact with every part of the bottom, without touching the sides. One man may

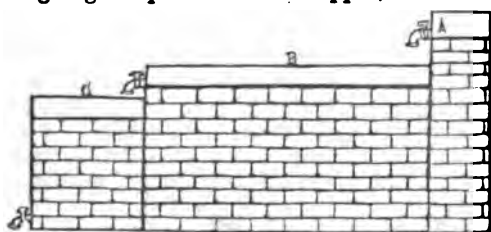


attend to the skimming, and no ladling is necessary. A large cock, attached to the extremity, allows the syrup to be drawn when sufficiently concentrated.

The diagrams show, 1. The outline of the pan. 2. The furnace on which it is hung.

3. The pan, set in mason work. A different arrangement of the evaporating vessel is, however, proposed, as in the diagram below. The apparatus in this instance is two flat-bottomed vessels of iron or copper, so suspended that the upper edge of the lower is on the same elevation as the bottom of the other.

The same fire is applied to each. After undergoing evaporation in the upper, it is transmitted into the lower.



Thus A admits the defecated juice. B is the upper, and C the lower evaporator. The bottoms of the evaporators should be corrugated, to increase the heating surface. In the manufacture of beet-sugar, steam has

been chiefly used for evaporating heat. The only decided advantage which it is said to possess, is the entire removal of the heat when required, without the trouble of dampening the fire, &c. It is by no means economical, from the loss of caloric and consumption of fuel.

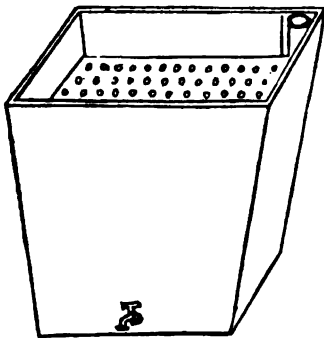
Dr. Evans remarks—Evaporation has for its object the concentration of cane-juice to the consistency of a syrup of that degree of density best suited to the process which it has afterward to undergo. Thus, if the syrup is to be filtered through animal charcoal previously to its concentration into sugar, the density which is best suited for this purpose is 27° or 28° Beaumé; but if this operation is not to be performed, the evaporation may be prolonged until the syrup has acquired a density of 30° or 32°.

Evaporation of cane-juice is best performed by ebullition at the ordinary atmospheric pressure. That degree of heat, at this stage, during which the sugar is largely diluted, when judiciously applied, so that the syrup may not be exposed to it longer than is absolutely necessary, is always beneficial, and often essentially necessary; for, otherwise, a larger portion of the nitrogenized matters, which have not been entirely removed, would be retained, and the crystallization of the sugar would be less complete.

The syrup being furnished in the state we have left it, the producer may elect whether he will have a good, fine article of Musco-

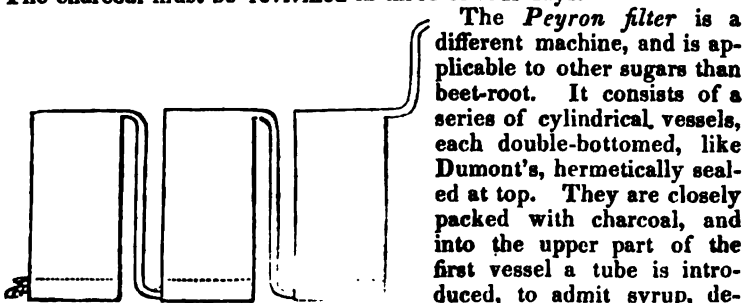
vado, or an altogether superior and valuable product. In the latter case he will resort to *refining through charcoal*. This was first discovered in 1805, and in 1811 *animal charcoal* was found to possess the qualities desired in a much higher degree than vegetable. M. Derosne first applied it in France to sugar. The filters made by M. Dumont are in general use. Animal charcoal discharges the color, renders viscid syrups crystalizable, neutralizes acids, and removes excess of lime. It destroys the bitter and aromatic principles of vegetables, neutralizes poisons, &c. Vegetable charcoal may be made in a considerable degree to possess discoloring properties.

Let 30 lbs. of it, reduced to a fine powder, and then washed carefully in water slightly acidulated with muriatic acid, and afterward with pure water, be mixed with 70 lbs. of clay, in the form of a paste, and the whole be set by to dry; then let it be broken into small pieces, and calcined in a close iron vessel, at a white heat, for two hours. On its withdrawal it must be received in covered iron boxes, out of the contact of the air, or instantly cooled with aspersions of cold water, and reduced into a coarse powder. This forms an excellent substitute for animal charcoal, as it possesses considerable discoloring powers.



The *filter* of M. Dumont is shown in the cut. It is a quadrangular, pyramidal vessel of wood, base uppermost. Its bottom is double, the upper one being basket-work or perforated metal. In the space between the two bottoms is placed a cock, and a metal tube rises from the same chamber. Over the false bottom is spread flannel, and placed powdered moistened charcoal—filling two-thirds of the vessel. Over the charcoal is a perforated cover. The hot syrup being poured in, the air and water,

urged by its pressure, ascend the tube and escape. Four filters would be required, of the usual size, to make three hogsheads a day. The charcoal must be revived in three or four days.



The *Peyron filter* is a different machine, and is applicable to other sugars than beet-root. It consists of a series of cylindrical vessels, each double-bottomed, like Dumont's, hermetically sealed at top. They are closely packed with charcoal, and into the upper part of the first vessel a tube is introduced, to admit syrup, descending with the aid of such pressure as drives it through the charcoal. It then ascends into another vessel, by a pipe, &c., &c., as in the plate. The cylinders are six feet high, and three in diameter. They do rather more work than Dumont's, and act five or six days. When the charcoal is worn, boiling water is

introduced, and by fermentation and effectual washing, it regains its power. The ordinary puncheon is, however, a very good filter.

The fifth chapter of Dr. Evans' valuable and scientific work is employed upon the CONCENTRATION OF SYRUP.

The density of syrups and the relative amount of their constituents will be different, as they are filtered through animal charcoal or not. The temperature of the boiling point in the first instance will be 219 or 220° Fahr.; in the last case 224°—with greater temperature, changes in the composition of the sugar will result.

Sugar being soluble in one-half its weight of cold, and one-fifth its weight of boiling water, boiling syrup, thoroughly saturated, must necessarily deposit, on cooling, three-fifths of its sugar, the remaining two-fifths being held in solution by the water. The temperature required for ebullition, where there is one part of water to five of sugar, ranges from 238 to 248°, and even higher. These temperatures are injurious to sugar, as is shown by the experiments of M. Soubieran. The effects after long application of heat were: 1. Disappearance of cane sugar. 2. Appearance of fruit sugar, or glucose. 3. Production of carbonaceous powder and acids. Examining the refineries of Paris where a low temperature was used *in vacuo*, no such results were marked.

The usual plan of *concentration* being in the first copper, or *teache*, as it is called, has the advantage of rapidity, but the loss in the quantity and quality of sugar thereby, is estimated as high as ten per cent. Experiments have been made in Barbadoes to remedy the evils of intense heat on the *teache*. These consist in reducing the size of the vessel, so that the syrup may sooner leave it.

A more important improvement would be to place the *teache* over a separate fire, and modify its form, viz., into a circular vessel, 45 inches in diameter, 14 or 15 inches deep—bottom convex within—a cock for drawing off concentrated syrup—the bottom alone to be exposed to the fire. "By these means the heat can be modified without interfering with the evaporation going on in the other vessels, and the bottom alone being exposed to the fire, there is much less danger of charring or burning the sugar than in the method now in use."^o

In 1819, Mr. Howard, of England, took a patent for concentrating sugar *in vacuo*, to prevent the evils of high temperature. The principle is that liquids boil at lower temperatures, as the pressure of the atmosphere is removed. Howard's apparatus was a globular vessel, of copper, inclosed in an iron or copper jacket, the space between being filled with steam. The syrup was contained in the vessel. A tube admitted the escape of vapor, which was condensed by a jet of water. An air-pump attached produced the vacuum, &c. This apparatus has been improved by inserting a long coil of steam-piping into the vessel, and the condensation of vapor by a metallic worm. The vacuum vessel or pan requires a thermometer, to indicate the temperature of the liquid, and a barometer, to determine the *degree of vacuum* or exhaustion. The steam-jacket greatly adds to the quantity of heating surface, as also does the steam pipe. The diminished atmospheric pressure increases in similar ratio to the evaporat-

ing power. A fall of 27 inches in the barometer reduces the boiling point of water to 164°. Thus is secured low temperature and rapidity.

Speaking of the application of this invention to the English colonies, Dr. Evans remarks :

Unfortunately its general adoption, that is, its introduction on every estate, will for ever be impossible, in consequence of the great outlay required for the purchase of the apparatus, the skill required for its management, its liability to get out of order, and the necessity of more efficient workmen for its repairs than are as yet to be found in the colonies. The first of these objections is not so applicable to large estates as it is to small ones, as they offer a larger scope for getting the return of an adequate interest on the money so invested; and in such a case the others would be overcome by the necessity which would arise of obtaining that knowledge from abroad which is not to be had at home, were there an urgent demand for its supply.

There can be no doubt that, on those estates which, from their extent and the fortunate position of their owners, will admit of the sinking a capital sufficient to obtain the vacuum apparatus, in conjunction with steam defecating and evaporating vessels, and a powerful and well-constructed mill, the ameliorations which would result, both in the quantity and the quality of the products, obtained under a prudent and intelligent management, would fully compensate the expense incurred; but how few are the estates which at the present time are in such fortunate circumstances!

A plan of concentrating syrup at a low temperature over the open fire, and at the ordinary atmospheric pressure, was submitted a few months ago by Augustus Gadesden to the West India proprietors. It consists of a copper pan in the form of the half of a hollow cylinder, in which are placed a number of metal rods, arranged for facilitating the evaporating surface. Connected with these is a wheel, continually revolving, and exposing to the atmosphere fresh portions of the heated syrup at each revolution. Dr. Evans remarks :

I used a small concentrating vessel of this description in the island of Madeira. The time required for taking off a strike containing fourteen moulds of fifty pounds each was two hours, and two hours and a half. The results were highly satisfactory; the temperature never exceeded 160°. It has also been in operation during two crops in Berbice, where its success appears to have answered every expectation formed of it. Such, however, has not been the case in the trials made of it in Barbadoes, for accounts from that island state that it occasioned a considerable amount of froth, and that the time occupied in taking off a skip was longer than was contemplated.

In Berbice the pan was worked by an intelligent boiler-man sent out from this country for the purpose; in the latter instance its management was intrusted to the sugar boilers of the colony.

The frothing, no doubt, was owing to the incomplete defecation of the cane-juice, and the non-separation of the whole of the albuminous principles; if so, the addition of a drachm or two of washed butter would in all probability have proved a remedy.

When the syrup has arrived at a degree of concentration sufficient for the deposition of three-fifths of the sugar it contains, it presents an appearance which is called "*proof*." When it has reached this point, the syrup "is clear and transparent, it does not mount or rise in foam or froth, the ebullition is quick and sharp, the bubbles succeeding each other with rapidity, and bursting as they arise. As the inspissation advances, the syrup is seen to run from the edge of the skimmer in a thin, broad sheet, which separates as if it were cut sharply off with a pair of scissors, and never hangs down in long adhesive strings; it communicates to the eye the sensation of being

a sharp, short, crispy fluid, possessing little tenacity or viscosity, and the sound of its ebullition communicates to the ear a similar idea."

A small quantity taken at this time between the fore-finger and thumb, and allowed to cool, shows, on being separated,

"1. That it divides into two small portions or drops, the lower one of which, attached to the thumb, is larger than that adhering to the finger.

"2. That the portions become pretty nearly equal, and their division is effected by a wider separation of the finger and thumb.

"3. On a separation to the extent of half an inch, a slight column of syrup is produced which remains for an instant, and then breaks at its inferior extremity.

"4. A thin thread is produced on a somewhat wider separation, and on breaking the extremity curls up in the form of a hook, and gradually retracts to the portion which remains on the finger.

"5. On a still wider separation the thread on breaking is so thin as to be scarcely perceptible at its lower end, which is drawn upward in the form of a corkscrew."

Concentration at low temperatures may be so conducted as to dissipate all water, and produce perfectly dry sugar. This is said not to be desirable, nine per cent. of water being better to remain, when 100 pounds of the syrup will give 70 of sugar, and 30 pounds of molasses.

In concentration at low temperatures, a simultaneous production of crystals is secured. Hence it is desirable that the pan at first should have but little syrup, say one-third, and that it be added to as evaporation proceeds, and until incipient granulation—which is called "*spark*," from its reflection of light. At this point fresh syrup is added.

There are varieties of syrups besides pure, which are worthy of passing notice.

Acid Syrups are the result of diseased or injured canes; of souring of cane-juice; of deficient use of lime. They are not transparent; become darker on boiling; boiled at low temperature the color is little heightened; the product of molasses is greater, and crystallization more difficult.

Alkaline Syrups, from excess of lime; sugar dark; grain good. Saline and viscid syrups; ebullition difficult, irregular and slow; bubbles do not readily burst; sugars produced, dark, heavy, clammy and deliquescent. These syrups require a low temperature.

Albuminous Syrups, from imperfect defecation; frothy in concentration; but butter or oil being added, the froth disappears without injuring the sugar, if carefully used.

Where syrups refuse to granulate, but appear tenacious and adhesive, they are said to be *smear*.

The real nature of *smear* is not known. It probably depends upon some electrochemical change excited in the molecules of the sugar during the process of concentration; but which, however, is not permanent, for syrups thus affected will, if left to themselves for some time, gradually become more and more crystalline; or if they be diluted by the addition of a little water, and be again concentrated, granulation will ensue, as if nothing had previously happened. Generally their exposure in a heater for a short time to such a temperature as will preserve their

fluidity, is sufficient to destroy this character, and to restore the crystalline powers of the sugar.

After the concentration of syrup in the *teache* it is passed in the English colonies directly into the *coolers*. The process of passing is called *skipping*, or striking, and is effected either by a ladle or copper skipper, fitted to receive the whole contents of the *teache*. The coolers are shallow wooden troughs, never exceeding one foot or sixteen inches in depth. The saccharine mass remains in the cooler until granulation has commenced, and is then removed to the hogshead. The system pursued of stirring the hot sugar in the coolers is declared by Dr. Evans to be destructive of crystallization, or perfect *curing*. Indeed, the whole process of potting and cooling as now practised, is reprobated as in the highest degree injurious. He argues that it tends to bind up with the sugar all the foreign elements which may be contained in the syrup—no little, even in the most skilful manufacture—and thus results the extraordinary melting away or *drainage*.

The three points to be attained from properly concentrated syrup are, 1, as large an amount of crystallization as possible; 2, as distinct and perfect a crystallization; 3, an easy separation of molasses. To perfect crystallization a perfect freedom of particles to move is necessary. The size and regularity of crystals depend upon the kind of evaporation. A rapid evaporation produces bad crystals.

“If these data be applied to the management of the syrup when skipped, such a plan should be pursued that the syrup may be preserved in a state as free as possible from viscosity or tenacity, so as to admit of the easy approximation of the saccharine particles. For this purpose the contact of cold air, and particularly draughts of wind, should be avoided; and to prevent the too sudden or rapid cooling of the syrup, it should be exposed to a gentle and uniform temperature. That the crystals of the sugar may be perfect in form, distinct, and sufficiently large, the syrup should be placed in such a condition that the process of crystallization shall not be too hurried. It must, however, at the same time be borne in mind that the results of the operation must be regarded in a commercial rather than chemical point of view; consequently, that the time allowed for its performance should be no more than what is absolutely necessary; for in this, as in all other branches of manufacture, time is capital, and can be spared only at a certain sacrifice.”

The concentrated syrup should be *skipped* into moulds of the hogshead size, and placed in a curing-house, of uniform temperature, free from currents of air. These moulds are of course fitted for passing off the molasses. The crystals, as they begin to form a crust on the top, should be separated by a wooden knife, and diffused gently through the mass—the operation being repeated once or twice. In twenty-four or thirty-six hours the plugs in the bottom of the moulds are to be removed. The temperature of 90° Fahrenheit is advised for the curing-house.

Another kind of vessel is advised for curing. Water-tight wooden chests, cubes, are to be placed side by side on the joists of the curing-house. The boxes to have false bottoms, two inches above the true, made of metal, minutely perforated, as of fine wire; this to be

covered with coarse sacking. Spread on the sugar an inch thick. Place a wooden cock between the bottoms. Fill the vessel with concentrated syrup, mixing the different skips, and leave in repose till a film of crystals appears—then occasional slight stirrings. Three or four days will be required for cooling where the vessels are large. When solid turn the cock or remove the plug.

Mr. Hague took out a patent for a similar process. A vacuum was formed between the two bottoms, and the air-pump suction introduced. The pressure of the atmosphere drove the molasses. Mr. Cooper improved upon the patent.

Drainage having ceased, art is applied to separate the **MOLASSES**. The French Beet-sugar makers applied a thick paste of clay to the surface of the sugar. The water of the clay exuding, passes through the sugar, and carries off the molasses. The dry clay is removed and renewed applications of the paste. This, though largely pursued, is deprecated by the chemist. Dr. Evans advises the following improvement:

Liquoring or syruing the sugar has for its object the replacing of the dark-colored molasses by another liquid of greater purity and of lighter color. The liquid to be selected for this purpose must be of a sufficient density to force the molasses before it as speedily as can be done with benefit; it must be incapable of dissolving any portion of the sugar with which it comes in contact; it must be much lighter in color than the molasses, to be displaced; it must be innocuous to health, and of such a nature as not to diminish the degree of sweetness of the entire mass.

The only liquid with which we are acquainted that possesses all these qualifications, is a light-colored syrup, of such a density as to indicate its saturation at the temperature of the atmosphere.

The use of the syrup should be thus: remove the crust on the upper surface of the sugar, crushing it, and mixing with cold water to a paste; replace it upon the sugar. The syrup, however prepared, must be of the color of the sugar desired. It must be poured cold to the depth of two inches over the sugar prepared as above.

In the colonies, says Dr. Evans, it will seldom be necessary to "syrup" more than once; but if a still better color be required, the operation may be repeated. We may, if we choose, as I have already stated, by the use of very colorless syrup, produce a sugar equal to the best crushed lumps of the European refiner. It may, however, be doubted whether carrying the process of syruing to the extent practised in Europe will be, on the whole, profitable.

Sugars which have undergone this process, even to a limited extent, are not improved in color only, but they are also much drier, less adhesive, their grain is more distinct, and they suffer no loss of weight from leakage during the voyage home.

Cane of the density 1073, or 10° Beaumé, at 60° temperature is estimated to contain about 18 per cent. pure sugar, reaching in some instances as high as 22 per cent. In some of the most successful of the Barbadoes estates, three hogsheads of sugar, of the average of 15 cwt., with a proportionate quantity of molasses, are produced from a single acre of cane.

The last consideration connected with the manufacture of sugar, is the disposition of its drainage or molasses. In Jamaica nearly the whole of this is converted into rum; and in other of the West Indies the same process is followed. At the present time we believe that the distillation of spirits is almost entirely neglected in Louisiana,

though we recollect being informed by a very intelligent planter of that State, that some years ago, when molasses was at a very low price, he converted the whole of his crop into rum, equal in quality to the West India, which sold in the New Orleans market for one dollar per gallon.

West India molasses, from the little attention paid to it, is of very indifferent quality; but on being carried to England it is converted into sugar of excellent quality.

The planters of Mauritius reboil, two or three times, their syrups with the same machinery used in other places. The boiling of molasses, it is said, is attended with small comparative expense. Where no change is contemplated in it, the planters, in the hope of increasing their sugar product, carry the point of concentration too far, to the disadvantage of that product.

The following summary, embracing nine leading principles in the cultivation and manufacture of sugar, is deduced from the reasonings of Dr. Evans, in his elaborate work. They should properly be committed to memory.

“1. The canes should be cultivated with a view not merely to their size and abundance, but we should, at the same time, by every means in our power, cause them to yield a juice as rich in saccharine matter and as free from all impurities as possible; and to prevent the evil which would result from decomposition of the juice, when cut, the canes should be conveyed to the mill without loss of time.

“2. We should attempt to get from the canes the largest quantity of juice, either by improved mills, or by close attention to the fitting, bracing, feeding, &c., of those now in use; by sprinkling the megass with water, or by exposing it to steam, and by repressing it between the rollers.

“3. We must employ the best means in our power to defecate the cane juice, that is, to make this liquid approximate as near as we can to a solution of sugar and water only. Its speedy exposure to the action of a high temperature must be effected, and the greatest caution must be practised in the administration of the ‘*temper-lime*.’

“4. The defecated liquor should be evaporated to the density of 32° Beaumé, or to any other suitable degree, with the greatest expedition; care being taken at the same time that the carbonization of even the smallest particle of the sugar be prevented, by constantly preserving in the pan a depth of liquor sufficient to cover that part of it which is exposed to the fire.

“5. The object of filtering the liquor through animal charcoal is the more perfect removal from it of the albuminous principles, excess of lime, coloring matter, acidity, &c.

“6. That the concentration of the syrup to sugar proof should be effected with rapidity, and at the lowest temperature possible.

“7. That to promote an abundant and perfect crystallization, repose, moderate warmth, and an equable temperature are necessary; and to effect the better curing of the sugar, these two operations should be performed in the same vessel.

“8. That to induce the complete separation of the molasses, the sugar, when sufficiently cured, should be submitted to the process of liquoring.

"9. The molasses must be concentrated before any fermentative change shall have commenced."

It is to be observed that the facts and principles of this and our preceding paper, are obtained from one conversant practically only with the system of sugar manufactory in the English colonies. Most of them may be said, however, to be of universal application. How far they may, or may not, correspond with results, etc., in Louisiana, remains to be inquired in other numbers of our series. It is for the interest of sugar planters that they be conversant with everything going on in their art in any quarter of the world, and we desire to give this information. In farther aid of our labors, we are in expectation of a work from England, not yet published, and information which has been solicited from the East Indies.

Nor can we dismiss the subject without adverting to the condition of the English West India Sugar Colonies of the present day. On every hand the loudest, deepest, and most bitter complaints are sent up to the crown. It is impossible for these planters not to feel that they have been sacrificed to the blind and misguided efforts of religious enthusiasts and pseudo-philanthropists in England, subserving the purposes of interested politicians.* One of the most significant movements of the times, in this respect, must be considered the late one in Parliament, calling for a Committee of Investigation into the state of the sugar colonies, and the grievous complaints of planters.† The mover of this resolution in his remarks took it for granted, that under the present system of labor adopted in these islands, and in the relationship subsisting between the whites and blacks, their ruin was inevitable, if not already achieved. What results may grow out of this commission of examination, the facts and statistics collected by them, and the testimony elicited, it is not hard to determine. Sure are we, that in the overwhelming evidence, fanaticism and folly will be unmasked and stand rebuked before the world! May we not hope, too, that the influences will be benignantly felt in our own country in crushing those nefarious combinations, whose ends, whether perceived or not, are the same embarrassment and ruin! The condition, prospects and happiness, yea, even the lives of five millions of our population, white and black, are to be jeopardized in experiments, which philosophy, history, and all example denounce and deprecate. Phæton in the car of the Sun is an admirable allegory of licentious abolitionism!

Dr. Evans complains of the loose manner in which the statistics of

* We think that Gov. Hammond, in his letters on slavery, unanswerably shows that the politicians of England, to build up her East India possessions, and break down the United States, lent a willing ear to the sincere but deluded zealots of emancipation. We shall take occasion at an early day to present an article showing, upon every point, from the most reliable data, the actual condition of the British West Indies at this time, contrasted with former prosperity.

† "Nothing, the West Indian contends, has happened that might not have been confidently expected. During the period of slavery the want of labor was unknown, for the great majority of the population was compelled by law to work upon the plantations from day to day. But when that great social change, effected by 'The Emancipation Act,' took place, vast numbers of the freed people betook themselves to other occupations natural to a free community; many to desultory pursuits, squatting, and vagrancy; while those who continued to work, were, from the fewness of their number, and the urgent necessity for their services, enabled to dictate their own terms to their employers."—EVANS.

the West Indies are presented. Could a complete register be preserved of each of the islands, and in fact, of the operations of the chief plantations, etc., much would result to the general benefit. Dissemination of knowledge of this kind would be of much advantage to Louisiana, and we have at all times endeavored to obtain it. A book is recommended, on each estate, to record the chemical character of the soil, mode of cultivation pursued, nature and quantity of manure, weight of canes per acre—their description, whether plants, ratoons, age, etc., quantity of juice expressed by mill, density of that fluid, and other peculiarities, amount of sugar and molasses obtained, etc. To this may be added, kind of force employed, kind and consumption of fuel, expense of machinery and improvements, results in drainage, condition of slaves—ages, sex, health, longevity, diseases, fertility, expense of maintenance—kind and quantity of food, of clothing, value of other products, value of slaves, etc., etc. The preservation of these statistics on all the sugar estates of Louisiana, we commend, in the assurance that it will be attended with the best results. To which farther add, system of management of slaves—observations on weather, temperature, atmosphere, etc., etc. Nothing would please us more than to obtain such a paper, rigidly *kept for one or more years from one of the largest estates in Louisiana*—and we will endeavor to obtain something of the same kind from the West Indies, by way of contrast. Bearing upon these points are the following remarks of Dr. Evans:

“The sugar-cane has never been produced from seed in the West Indies, it is propagated by cuttings or germs: plants so raised, as is well known, become in time liable to deterioration and disease, and often entirely disappear.

“There is, indeed, much reason for believing that this change has already commenced in the Bourbon and Otaheite cane. Ought we not to inquire, whether this disposition might not be checked, or whether a great improvement in the vigor of these plants might not be effected, by a change of cuttings between colony and colony, or even between plantations in the same colony?

“Or would it not be useful to obtain occasionally a new stock from the countries which originally produced them?

“These, and other questions of equal importance, cannot be answered, for as yet they have attracted no attention.”

Among the many schemes lately advanced for the relief of the British sugar planters in their deplorable condition, one or two may be noted. But none of them, in our opinion, go to the bottom of the difficulty.

In consequence of the deficiency of force on the plantations, and difficulties of labor, it is proposed to establish **CENTRAL FACTORIES**, like toll mills, in the heart of different sugar regions for the manufacture of the canes for the contiguous estates for miles around—these factories to be supported by British capital, and furnished with English laborers. Dr. Evans argues strongly against their practicability—from the nature of the country to be traversed in carrying the canes to mill—from the bulky nature of the canes—from the important consideration that all the canes from the estates arrive contemporaneously at maturity—and their speedy grinding, so necessary,

could not be secured, etc. He finally shows that, all things together, the expense to the planter would very likely be greater than at present.

Another measure proposed has been to export to England the concentrated cane-juice, to undergo manufacture there. It is thought, that, with due modification, etc., of the British Tariff, this plan would be greatly successful.

The following *restrictions* are chiefly complained of by the British sugar estates in their present embarrassment, and with them we close for the present :

1. Upon the importation of labor by "passenger acts," etc.
2. Upon improvement in the quality of product—nothing being allowed, until lately, to be exported superior to Muscovado.
3. Upon the exportation of the raw material, juice, etc., by the nature of the duties levied and want of discrimination.
4. Upon the use of saccharine matters in England for various manufacturing purposes.
5. Restriction by navigation laws in favor of British ships.
6. Upon the importation into the colonies of the produce of foreign countries.
7. Upon the importation of colonial spirits into England.

Art. IV.—AMERICAN NATIVE WINES.*

SUCCESSFUL VINEYARDS IN THE SOUTHERN STATES.

To J. D. B. De Bow, Esq.

SIR—In compliance with your complimentary request, to send you from my pen an "article on the Vine," I put together a few thoughts illustrative of the above heading.

As you state in your letter to me, the subject of vine culture is becoming important in our Southern country; and, of course, the light of experience thrown upon it by a Southern periodical may be useful.

From the experience, observation, and reading of near twenty years, I have much to say, which, of course, must be condensed into leading heads only in the limited compass of a single essay for a periodical; and as experiment is the great test of utility in all arts, and especially in that appertaining to agriculture, I will confine myself chiefly to its results. In regard to my simple but successful mode of wine-making, and matters connected therewith, I would refer you beyond this paper, to those re-published by Mr. Burke in the Patent Office Report, of 1845, taken from different agricultural periodicals contributed to by me.

* We published in our June No. a paper from Mr. Poinsett upon the cultivation of the vine in Southern States. The present contribution, from its practical character, must have great value. We shall be obliged to Mr. Weller from time to time for other results, as his *vines* and *wines* are now gaining much celebrity; and we hope to see them in Louisiana before very long, where we shall take great pleasure in calling attention to their merits. We should also be obliged to Mr. Adlum of Georgetown, D. C., Mr. Cox of Georgia, and Mr. Herbemont of Columbia, S. C., for additional particulars.—Ed.

North Carolina is ahead of all her sister States, in the wine product, by some thousands of gallons, according to the agricultural census of 1840; and, as far as I know, my vineyard is the largest in this State, and I suppose in the South, and perhaps the most productive; since, besides entertaining hundreds of visitors, and disposing of quantities of grapes carried away, I made, last vintage, forty barrels of wine. My increase of product has been annually, for a few years past, about ten barrels. I sell readily my wines at a good price, and, of late years, have lost none by spoiling.

Of our native Scuppernong, the great grape for the South, I make wines that readily bring me, in different markets, from \$1 to \$4 per gallon, according to quality. I say quality, for by a peculiar process of manufacturing, my wines are good and fit for market in a few months only after making. My lowest quality of wines are made by adding, as the preserving ingredient, one-fourth part of the best spirits. My best wines receive three pounds of the best, double-refined sugar per gallon. Spirits add their own bulk to the volume of the liquor; sugar adds very little to the volume; hence, mainly, the difference in price.

Another evidence of my success in the vineyard, is the increasing demand for my SELECT AMERICAN WINES. Encouraged by patronage, I have for years past cultivated the choicest varieties, selected from every part of our country, in the nursery to be well-rooted and ready for market; and more of the Scuppernong than any other variety, not only as the best Southern grape, all things considered, but that it cannot be propagated successfully by cuttings, but by layers or grafting.

At the medium price of twenty-five cents for a well-rooted vine, I have sent boxes, inclosing with the vines specimens of wine (as presents), to most distant parts of our country, as to Natchez, Miss., and St. Louis, Mo.; and from reports of success, and farther demands (I have now several letters or orders on hand from distant places), I infer that the vineyard cause is indeed advancing in the South. And why should it not advance? There is nothing to prevent, I opine, but blind, servile adherence to foreign plans and treatises on vineyards. This adherence formerly prevented the success of the vineyard cause in our country, and would ever have prevented, had not American genius, that struck out new plans of traveling and conveying intelligence, by steam and telegraph, also struck out native modes of vineyard and wine-making, to emancipate us from European dependence. If we can safely judge blessings from the light of experience and Revelation, grapes and wines rank by the side of bread itself. The terribly destructive vice of intemperate drinking is scarcely known in vine countries, nor will it be in ours, I trust, after the general spread of vineyards. To Mr. Adlum, of Georgetown, D. C., Mr. Cox, of Georgia, and Mr. Herbemont, of Columbia, S. C., and some others, as pioneers, we are indebted for the practical demonstration that America might wholly depend upon her own resources for grapes and wines, and throw off European shackles in these as well as other respects.*

But more directly to my own experience in vine culture. Induced

* We may also add the Hon. Joel R. Peinsett of South Carolina.—Ed.

to the undertaking by the hope of being able to strengthen the influence of the temperance cause, I started with a pretty large number of Scuppernong and other native cuttings—of the Scuppernong, mostly, as I had often read and heard the high praises of this famous native of our old North State. The Scuppernong cuttings all put out in the spring, but, as usual for them, they all died in the summer. After this dear-bought experience, I learned that this kind would not grow generally from cuttings, and to attempt to use them is a fruitful source of discouragement and loss in the business. They answer in Europe, where not only mildness of climate favors the plan, but also cheapness of labor. It is decidedly best for the American vintner to start his vineyard with well-rooted vines, reared in the nursery from cuttings or from layers. Even in grafting, it is better to begin in the nursery and transfer into the vineyard after a year's growth; this is a common method with me; though I have a very pretty portion of vineyard acquired by searching the woods late in the spring, when vines are in leaf, and getting stocks of the Fox and other common kinds, an inch or upward in diameter, grafting them wedge fashion, and then transplanting ten feet each way. The scions (having been kept, back in a cool place, from sprouting) were Weller's Halifax and Norton's Virginia Seedling. They are kinds I esteem next to the Scuppernong, as free from propensity to rot, and in every other respect good.

As to grafting, there is a very important distinction for those desirous to adopt. It is the uniform result of long experience, that if grafting is effected on stocks procured or dug up from the woods, success, with due pains taken, will surely follow, if done at any time from the complete fall of leaves in autumn until late in spring, or even summer, when the scion can be kept back from sprouting. But if the graft be on stocks not dug up, or stands where it is to remain, it must be done in the fall, or early part of winter, to insure success. This last fact is important to those desirous of changing the kinds of grapes in their vineyards, or vines standing on their premises, to eligible situations. In this way I speedily changed my foreign and other rotting kinds into unexceptionable native varieties. No clay or any other covering of the grafted part is necessary in grafting grape vines even with the ground. All that is to be done is to saw off your stock, and put in your scion (with two or three buds thereon), wedge-fashion, as in cleft-grafting fruit trees, and then draw earth around a few inches high, leaving one or two buds above ground. Or, where the stock is very large and inconvenient to split, I have made a gimlet-hole and inserted the scion spoil-fashion, and then drawn the earth around. The vine is porous, and sap does not pass between the wood and bark, and therefore the success in the last-named mode of grafting. But to avoid disappointment, the vintner should be aware that more trouble and attention is required in the grafting process, to pull off sprouts from the old stock, as they spring forth to rob the graft, than in the process itself; and this is far more the case in grafting to stocks standing in their original place than in those procured from the woods. To compensate for this, however, the growth from the former is much greater than from the latter, viz., eight or ten feet a season in the one case, but thirty feet not uncom-

monly in the other. Grafts often bear some fine clusters the first season of growth, and pretty considerably the second. A few years past I had the curiosity to measure the second season's product of a Halifax vine which I had grafted to a tolerably large stock. It was half a bushel of fine grapes—equivalent to a gallon and a half of wine, if made with sugar, and two gallons, if made with spirits as the keeping ingredient.

In reference to this keeping ingredient, I am reminded of one of the grand errors impeding the advancement of the vineyard cause in our country. The error in practice is predicated on the false idea that the juice of American grapes is as strong as in foreign countries, and, therefore, needs as little help to safely keep the wine as that across the waters. All good authorities on the subject, as Mr. Herbermont, &c., concur in the idea, that while American vineyards far exceed European in yield, yet they fall far short in the strength of the juice yielded; and, therefore, corresponding keeping ingredients must be used, or no adequate success can be expected. True, I, as others, have made wine without such ingredients when the grapes were not only ripe but shriveled; but this will not do so as a business, since, though the grapes may not fall or spoil, by being left too long on the vine, yet the quantity is small and the vine will be injured for farther bearing; besides, many other reasons might be adduced, all of which show the plan to be impracticable, of making wine as a business in our country without a sufficiency of some keeping ingredient, as sugar or spirits, or both; the universal experience from all reliable sources of information, as I can learn, is, that bad success has ever attended the trial. I experimented in that way to the loss of half my wine years since. But with a steady eye to the physical fact of the comparative weakness of American grape-juice, and adding a plenty of sugar or brandy, or both, I have lost no wine for several years; and, from most reliable sources, I learn that most European wines for safe-keeping have spirits added to them more or less—as the port wine, ere it crosses the ocean, one-third; and I venture the suggestion that if more of the spirits made in this country was added to the grape-juice, or used as in wine-making in foreign countries, instead of being drunk in its crude state, it would be much better for the temperance cause.

Another advantage of a free use of keeping ingredients is that good wine can be made of green grapes, all or in part. By a sufficiency of sugar or brandy, of both combined, I have succeeded beyond my expectation with the green fruit of the vine. I had the hint to try it from that American pioneer in wine-making, Mr. Adlum, whose "rules" are contained in the "American Farmer," to make wine from green, and, indeed, half-grown grapes. I will here give a brief account of a barrel of wine which I made last vintage with partly green grapes, gathered green because at a distance from my house, and in danger of being depredated upon.

A few months since a young man, who manages mostly my vineyard concerns, brought me a specimen of a very fine-tasted wine. I ordered him to bring me the label attached to the barrel containing it. Seeing it was No. 25, I turned to the corresponding number in

a book of record of wine-making, and the following is the substance thereof for said barrel :

Made, September 17th, 33 gallons, composed of the following : viz. 5 bushels of white Scuppernong grapes, *half green ones*, 2 bushels of purple Scuppernong or muscadine, 2½ bushels of common or bunch grapes of the woods ; fermented, after mashing (with a machine of two wooden rollers) two hours ; juice strained through folds of a woolen blanket, as it run from the press ; 20 lbs. of common brown sugar then added, and 8 gallons of good apple-brandy—and turned into a new cask, fumigated with a sulphur match.

And I add, the cask stood in one of my wine-cellars undisturbed till the time the said specimen was brought me, and, that afterward being racked off, it sold readily for two dollars a gallon under the name of *Weller's Scuppernong Champaign*.

While my book is open, I will give the result of another *batch* of grapes made with nothing but sugar as the keeping ingredient, viz. :

Seven and a half bushels of white Scuppernong and three and a half colored Scuppernong, or muscadine, or bullus grapes, mashed at night, and pressed off next morning ; juice, after straining and mixing, divided into two casks—viz. : into one put 20 gallons of juice, mixed with 50 lbs. of common brown sugar, swelling the volume of the liquor half its own bulk, or 3 gallons—making 23 gallons in cask No. 33 (made October 1st) ; cask No. 39 contained 13 gallons of wine, viz. 11½ gallons of juice and 34½ lbs. of double-refined crushed sugar.

The last 13 I sold at Raleigh to members of the Legislature, and other good judges of wines (pronouncing it superior to any foreign), at \$4 per gallon, under the name of the *Red Scuppernong Hock* ; and the other kind called the *White Scuppernong Hock*, sold at \$2 a gallon—a remarkable difference, arising from the quality of the sugar. Some may be disposed, I here remark, to pronounce the wine *adulterated*, when spirits are added. But why ? Wine consists of certain products of nature *chemically combined*. But if some of these products are deficient in any juice, why is it not allowable to supply the deficiency by some product at hand to answer the end of a delicious, and healthful, and safe-keeping wine ? Alcohol is one of the purest products of nature ; pervading more or less the vegetable world, as a sort of *preservative power* therein. And if not a sufficiency of this power why not *increase* it artificially for wines in the form of pure spirits ? I say *pure spirits* ; for if any spirits are well *rectified*, as are what I use, and thus divested of any *peculiarity* of taste, the wine made with them retains the peculiar zest of whatever grape is used—thus not only a pure or unadulterated liquor (if purity consists in freedom from any deleterious or poisonous ingredient, or what is common in many foreign wines, so called, at least), but as a Frenchman would say, *unique*, or one in taste and properties ; or equivalent to the foreign wines made with spirits distilled from the kind of juice from which their wines are mostly composed. When American juice becomes sufficiently plentiful by the increase of vineyards, it may be distilled, and its alcohol used, as in Europe, instead of pure spirits. But from my acquaintance with chemistry, and experiments partially made, I predict no essential difference as in the properties of the wine, whether made with pure spirits or with spirits distilled from the grape juice. But according to the suggestion of a friend, I will more fully experiment with the latter ; or distil Scuppernong juice and add its brandy to make Scuppernong wine ; and

intend reporting the result in due time. But in view of what may be called pure ingredients, whether sugar or spirits, I venture to assert that wines made with either may be called *pure wine*; especially if compared with *foreign* wines, or those so denominated, often adulterated with poisonous ingredients. And I know this, that my wines, with no other ingredient than sugar, or pure spirits, ever added, circulated in this region and other parts of our country, are pronounced by the best judges to be more unequivocally pleasant, healthful, and medicinal, than any foreign. Many ladies in delicate health have found essential benefit from their use. And I add that the wines made with pure spirits, as a medicated medicine, and in some other respects, is more generally approved than that made with sugar. One thing is certain, that all wine properly so called, has alcoholic power therein, generated by fermentation, if not otherwise acquired. Scripture wine is clearly alcoholic, from the fact of its excess producing intoxication, and the Bible warns against drunkenness by its intemperate use.

Another reason why it is preferable that an American vineyard should be started at once, with well-rooted vines, rather than with cuttings or grafting, is the greater distance vines should stand apart in American vineyards. Cuttings 10, 20, 30, or 40 feet apart, instead of 3, 5, or 6, as in European vineyards, have a discouraging appearance. But not so vines 5, or 10 feet high, fastened at first to stakes, running unchecked in length, and trimmed only in summer or fall to prevent them from becoming bushy. Until 6 or 8 feet high they should run on trellises, or ramify over scaffolding. This is the true American successful mode of vine culture and productiveness.

The European plan (as laid down in most treatises on vine culture), of near planting, humble height, and close trimming, is as pernicious an error as that of cultivating foreign wines instead of choice natives. This plan has been tried without success over and over again in different parts of our country, as any one may learn by taking due pains to inform himself. It is remarkably significant that no foreigner has ever succeeded in our country at grape culture. An exception, perhaps, in the case of the colony of Swiss, at Vevay, Indiana. But their vineyard is a final failure, as any may learn by reading Burke's Patent Office Report, of 1845, at page 953. Foreigners too, are much wedded to a system, doing well abroad but not here. An intelligent Frenchman visited me a few years since in the grape season. While *meagre* in praise of other grapes, he highly extolled the Scuppernong, saying it was every way equal or superior to the best French grapes; but alleged that better success would attend my vineyards if I would trim more and resort to posts and trellises instead of scaffolding. I answered him that the management he disapproved was the grand secret of my success; and that following his suggestion would soon render my vineyards profitless, and eventually ruin them. The very luxuriant, far-extended growth of grape vines in our forests and hedge-rows is the true *model of nature* ("NATURE a name for an effect and God the cause," cause and effect both *unerring*), pointing out the *unerring* plan for an *American vintner* to pursue. As long as I disregarded that model I found the vineyard an *uphill* business. But the wished for success followed, after giving ample room on every

side for vines to expand themselves; first unchecked in length upward and then sideways on trellises and scaffolding, so that, at length, underneath the canopies nothing is to be seen for 6 or 8 feet from the ground but main vine stems and supporting posts.

Another of nature's models gave me a hint to let my vines have the same advantages as to roots as the trees in the woods, or old piny fields, viz.: that the falling leaves be secured from blowing away by scarifying the ground ere they fall, and afterward, in order to increase annually the fertility of the soil, instead of by direct manuring.

The common distance apart I have planted Scuppernong vines is 20 feet, and other kinds 10; but I now consider 20 too near for the Scuppernong; 30 or 40 being better, unless it is calculated to remove every other one before they become too large. A Scuppernong 14 years old from the planting, I measured to-day, and it covers an area whose diameter is 50 feet. Another now in view from my office runs 30 feet on scaffolding, and then ascends an aspen tree, spreading over its branches to the height of about 40 feet; the aspen tree full of grapes, so to speak. About ten years since I planted two vines of this kind in the garden of a neighbor; trained from the garden on some oak trees in a grove, a barrel of wine was made from this last vintage, besides abundance of the fruit for family use; and I was assured that if all the grapes had been saved, another barrel had been the result. A vine in the lower part of this State, near the Scuppernong Island in the Roanoke, whence this grape and its name originated, produces its annual yield of five barrels of wine, I am most credibly informed. With myself and others in this region of country, Scuppernong vines have produced at rates of 2,000 gallons per acre.

The berries of this grape are very large. I have frequently measured select ones and found them to be three and a half inches in circumference; two I have found 4 inches round. They are more easily gathered than other kinds. A large sheet with poles fastened to two sides is held under the canopy, and a third person shakes the canopy above with a forked pole, and all the ripe grapes fall into the sheet and the green ones remain. In making wine with the green ones they have to be picked off by hand like other kinds. They are ripening here about two months; and that period ensures *successive gatherings*; and the *most delicious* of grape fruit. The Scuppernong is peculiarly a Southern grape; and for the South it is doubtless the best grape in the world, considered in all respects.

From the best sources of information, I learn the Scuppernong does well everywhere south of latitude about 37°, when properly managed and the management is very simple, though very necessary to success. It is to trim enough in the first stages of its growth to prevent its becoming bushy, and afterward (say 50 years, or no telling how long a vine will flourish) to keep by scaffolding the canopies clear underneath of all straggling or hanging-down branches, six or eight feet high. This being not done, the vines will surely fail to bear well, and to have the fruit in perfection.

My "Halifax" I estimate next to the Scuppernong grape. It runs or spreads to a great extent. From my study I see the top of an apple tree covered with fine large cluster grapes from it. And by

measurement with a ten foot pole, I find the tree forty feet distant from where the main stem of the vine stands to the ground, and the tree is twenty feet high. I was told by good authority last winter at Raleigh, that this grape, carried to France, was considered there to rank among the first class wine grapes. The berry is as large as a common bullet, and clusters of uncommon size. One peculiarity of it is, that it changes its color to a bright purple long before it ripens, and is a good table grape. But the Norton Virginia Seedling, next in excellence, is a good eating grape, or for wine, as soon as it changes to a dark purple.

Of one hundred and fifty varieties of grapes, I have not more than about twenty I consider good and unexceptionable in all respects for *American* culture. My foreign grapes, after trial, I cut down as worthless; and of some even noted natives I cut down all but a few also, and grafted unexceptionable kinds upon their stocks. Of the Catawba, Isabella, Herbemont's Madeira, or Warren and Longworth's Ohio, or Segar box, and others, I retained a few as specimens of their fruit, when any happened not to rot, which is about one season in three with me; though I see, from the "Patent Office Report," that the Isabella and Catawba are not so prone to rot in the State of Ohio, and that more northerly they are still less prone. These kinds rot here every year, more or less; but about every third season none escape this calamity worth regarding. The rot is a grand difficulty as to Southern vineyards, especially—owing, I suppose, to the heat of the climate; and the vines prone to it are worse in this respect by age. This season has been uncommonly fatal to the kinds in question. Till a few days past, we have had two weeks continued rains. Even some grapes in the woods rotted.

But to close this essay, now longer than intended, I will briefly report those varieties in my vineyards rotting and not rotting. The Isabella, Catawba, Herbemont's Madeira, Longworth's Ohio, Elsingburg, Vevay (of the Swiss), Norton's large purple, and a number of other kinds, pretty much all rotted; some others, about half. The Vine Arbor, Somerville, my Halifax Seedling (from the seed of the Halifax, a most excellent grape), Brinkleyville, and a few others, some few rotted on part of the vines. The rot, I observe here, is as tantalizing a calamity to the vintner as the yellows to the silk grower. I relinquished the silk business as hopeless of profit in the South (where there are great and sudden vicissitudes of weather), because on the very eve of spinning cocoons, when expectation was on tip-toe, often the worms took the disease called the yellows, and nothing could arrest the destruction of an expected crop of silk. So of grapes prone to rot, on the very eve of maturing they often perish. The best preventive remedy I have found is, to keep plowing the lands with furrows turned toward the foot-stems of the vines in cleaning the ground. This at length leaves the ground much lower midway between the vine rows, and prevents too much occasional moisture near the main vine roots. The hollows thus made answer also for inclined plane ditches, where the vineyard is on shelving ground. But the best preventive is to select kinds not prone to rot. And such with me are: the Scuppernong, Weller's Halifax, Norton's Virginia Seedling, Lenoir, North Carolina, Hunterville, Franklin and

some other varieties, good in every respect, and none of which rotted this season; heretofore, few or none of the Vine Arbor, Weller's Halifax Seedling, Somerville, and some others.

I am, dear sir, with respect, yours,

SIDNEY WELLER.

Brinkleyville, Halifax Co., N. C.

NOTE BY EDITOR.—At a late meeting of the "Cincinnati Horticultural Society," a committee having been entrusted with the subject of Wines, reported, after a variety of trials and experiments, as follows:

"The result of the examination is a conviction that our soil and climate are well adapted to the production of a very fine, delicious wine, and the Catawba is the species which yields the finest quality. The pure juice of the grape, the committee add, when judiciously managed, will furnish the finest quality of wine, without any addition or admixture whatever (thus raising an issue with Dr. Weller), that no saccharine mixture is necessary to give it sufficient body to keep for any length of time in this climate. In confirmation of this opinion, we would state, that two of our German friends, who were present, informed us that they had taken, on different occasions, specimens of the wine of this country to Germany, and submitted them to the judgment of various connoisseurs, by whom they were highly approved, the principal or only objection being that they were too strong to compare with the fine kinds of the lightest German wines. A taste for the wine of this region appears to be well established, since all that can be produced finds a ready market at good prices; and the committee are of opinion that the period is not far distant when the wines of the Ohio will enjoy a celebrity equal to those of the Rhine.

Art. V.—RESOURCES AND PROGRESS OF TEXAS.

HISTORY OF TEXAS—CLIMATE, SOIL, PRODUCTIONS, POPULATION, HEALTH—CULTIVATION OF SUGAR, COTTON, RICE, TOBACCO, ETC.—VALUE AND QUALITY OF LANDS—WEALTH, ETC., OF BRAZORIA COUNTY.

We are indeed delighted with this paper. It is the first successful attempt to procure minute and reliable information upon this interesting region, though we have been trying a long time. Will not our friend continue these papers, as we assure him that they will be read with avidity in every quarter of our Union? Being *on the spot*, he can collect everything. The importance of this will be understood on referring to the circular issued the other day by Mr. Burke, of the Patent Office, to the people of Texas. We would like to hear also from the interior and northern regions of Texas.—EDITOR.

PREVIOUS to the annexation of Texas, the little republic, from its geographical position and other causes, was the theatre of intrigue and foreign negotiation, and played no unimportant part in the history of the times. By its admission into the family of States, it has been shorn of its political importance, but has acquired an increased interest as to its productive resources. The security afforded to person and property by the act of annexation, has given a value to all the elements of prosperity within the new State, and the time is not distant when Texas will contribute her full share to the collective wealth of the Union. The mixed character of her population, uniting Yankee skill and enterprise with German industry and perseverance, is a guaranty to the rapid and complete development of

the resources of the State. It is not my purpose, and far beyond my ability, to allude even to the variety and extent of those resources. A glance at the map showing the limits of Texas, spreading along the sea-coast, and running back into the mountains, embracing almost every variety of climate and production, mineral and vegetable, with broad rivers for the transportation of all that her fertile valleys may yield, must satisfy any one that, with proper direction to her industry, she is destined to a high place among the agricultural States. The soil is of unsurpassed fertility, and so varied in its properties as to be adapted to the growth of any article suited to the climate. A chemical analysis of the soils common in this portion of the State has been published by William P. Hart, M.D., in the June and July numbers of the "Commercial Review." The result of that analysis, though incomplete, places the soils of Texas in favorable contrast with the best in the United States. The three varieties therein analyzed, and known here as the *peach*, the *cane* and the *elm* soils, named from their characteristic and prevailing growth, exhibit different, yet equally valuable compounds. Experience has partially tested their comparative merits; the most successful results in the manufacture of sugar hitherto, have been obtained from the peach land, the cane soil has yielded the heaviest product in corn, and grown the largest sugar-cane, while the elm, if thoroughly drained and put in a high state of cultivation, is considered the best for cotton. But the relative value and production of these soils is still a matter of dispute among our planters, and so much depends upon the previous preparation of the land, the number of years it has been cultivated, its drainage and deep plowing, that the preference of one over another, and their adaptation to the production of corn, sugar-cane or cotton, can only be arrived at by a full and accurate analysis showing the peculiar properties of each.

Of late years chemistry has become the handmaid of agriculture. It cheapens labor and increases production. In the over-populated countries of Europe it has, by a judicious application of means to the end, contributed to the support of millions—its light follows the furrow of the plowman. In France, particularly, the discoveries in chemistry have been happily applied to the increase of agricultural products. The example should not be lost to us; and if the gentleman who has begun an examination of the Texas soils should farther prosecute his inquiries, show our planters what are the constituent principles in the cotton-plant, the sugar-cane, and in Indian corn, as also the relative properties of our soils, and which is best adapted to the growth of either of the above staples, he will render a lasting and not forgotten service to the State.*

In all parts of Texas the disproportion of prairie to the timbered land is an objection very generally urged, and will be a source, eventually, of much inconvenience to the sugar planter. But this evil may be guarded against by a timely resort to ditching, or the use of the Cherokee rose as a hedge. These expedients, apart from the ulti-

* If the planters would assist us we would have all these soils and staples rigidly analyzed and examined. The expense, however, would be too great for us now. Any planter disposed to co-operate in this matter, might easily raise the necessary funds by a contribution among his neighbors and friends, which would be a trifle to them.—Ed.

mate saving of labor, will enable the planter to apply the timber now required for fencing to the making of staves or for building purposes. Economy at the start will do much toward obviating the scarcity of timber.

In Western Texas, and in the interior above the flat country on the seaboard, the prairies are almost exclusively planted, being more easily brought into cultivation, and producing as well as the woodlands. In this region, and near the seaboard generally, the experiments that have been made in prairie culture have not been successful. The property of the soil is impaired by the heavy rains which in winter and early in the spring not unfrequently cover the surface for days and weeks; and as yet no thorough experiment has been made in draining. I am inclined to the opinion, however, that much of the prairie lands near the coast, if well drained and broken up with a subsoil plow, would equal in production the best lands in the State—at least for sugar. Hitherto but little attention has been paid to the proper preparation of our soils. The wretched custom, so prevalent at the South, of seeking to make the most out of land in the shortest time, without a thought to its improvement or durability, has been carried out here to its fullest extent. But since our admission into the Union a better practice is prevailing, and our improvements in agriculture keep pace with our brightening prospects. All new inventions, and the implements of labor of the most approved model, are sought after, and with the facilities afforded through a weekly communication with New Orleans, Texas, in the making of sugar, as in other experiments of agriculture successfully tried, will avail herself of the example of Louisiana and her sister States.

With the lights of such experience brought to bear upon a soil and in a climate eminently adapted to the production of the great Southern staples, the agricultural advancement of Texas must be rapid and remunerative. But let me not be understood as encouraging a rash and thoughtless immigration. There are many inconveniences attending a settlement here. The population is scattered, the water unwholesome, rendering cisterns essential on every well-conducted farm; the roads are bad, in winter time making a land-carriage for produce for three or four miles a matter of more delay and difficulty than a distance of twenty miles on a good road. The mosquitoes, too, besides a host of annoying insects, in number and size, would not suffer by comparison with their kindred found in the everglades of Florida.

But perhaps these are minor ills contrasted, among others, with the profitless and disheartening labor expended upon the worn out lands in many of the old States; and we should bear in mind, that, as every period and station in life has its trials and difficulties, so every clime and country has its advantages and disadvantages. The tillage of the earth is the most ancient, as the most honorable occupation of man; but, at the same time, to be made profitable, it is the most laborious. The varying seasons must be met by a change in the mode of cultivation, and the most systematic and industrious cannot count each year upon a certain and full return for their labor. This is the experience of all countries, and particularly so of this part of Texas. It is liable to extremes of drought or rain; the for-

mer occurring mostly in the spring and summer months, lasting ten and sixteen weeks, and followed by floods of rain for a corresponding period. Should the rainy season set in during the months of June, July or August, the caterpillar is sure to appear, and if later, the difficulty of gathering a cotton crop in a wet fall is known to all who have had any experience in the raising of that article. This uncertainty in production has induced many, or nearly all who can afford the expense, to enter upon, or look ultimately, to the growing of sugar-cane. I do not mean to say, however, that Texas, even this part of it, is not a cotton country. The caterpillar has appeared in this county (Brazoria) for a longer period of years, and earlier in the season, than in any other part of the State; and yet there are planters here who, for twelve and fifteen years past, have averaged seven bales of 500 lbs. to the hand. Some years they have failed almost entirely, but the average has been made up by the over-production of favorable seasons. A bale of 500 lbs. to the acre is considered a fair crop, and the staple is thought equal, and would be, with careful handling, superior to that of Louisiana. The cotton seed is planted in rows from seven to eight feet in width, allowing two and a half to three feet in the drill—the wider distance I think preferable. More attention has been latterly paid to the procuring of good seed, and a fair proportion of the crop is this year planted in Mastodon and Petit Gulf seed, directly brought from Mississippi. The late spring of 1846, and the early appearance of the caterpillar, before the cotton had matured, caused fears as to the seed of last year, and led to a greater importation of that article than usual. The prospects of the present crop are encouraging. The worm appeared early in July, but as that month proved dry and warm they soon disappeared, and up to this date, September 1st, no serious injury has been sustained from them. Since the 1st of August there has been an average of 200 lbs. of seed cotton picked to the hand, and if the fall is dry and favorable, there will be an average of over 2,000 lbs. to the acre.

The experiments made in the cultivation of cane and the manufacture of sugar have been most successful, though no fair trial, testing the full capabilities of our soil and climate, has yet been had. The experiments have been incomplete, both in regard to the mode of culture and the process of manufacturing, the mills used being of the most ordinary kind, and the other machinery of corresponding value. Notwithstanding this, there was a yield last year of over two hogsheads to the acre of sugar of most excellent quality; and those of our planters who have turned their attention to this branch of agriculture are decidedly the most prosperous. This result has stimulated many others to go largely into the growing of cane, and their outfit and labor bids fair at the present time to be well rewarded. In my immediate neighborhood six sugar establishments, costing from 10 to \$15,000 each, independent of brick and home labor, are being erected, and will be completed for the grinding of the present crop. From the experience of past years, no frost may be looked for that would injure the standing cane before or about the 1st of December, though the weather here during the *northers* is sometimes severely cold, the thermometer in December, 1845, and in January of this year, having fallen to 24° Fahr. Uninformed as our planters

were as to the best mode of putting up their seed cane, much of it was injured last winter by the cold, as also the ratoon, from not being covered with the stubble. In a wet winter both the plant cane and the ratoon would be materially preserved by the opening of suitable ditches, as water lying on or near the surface of the ground tends to rot the cane and expose it more to the severity of the temperature. In a level country like this, it cannot be too often reiterated—"drainage is manure." The sugar crop requires less labor, is more certain and profitable, than the raising of cotton, and if the production of the last year is sustained on future trial, most of the land in Texas bordering on the coast, or convenient to navigable rivers, will be planted in cane.

The area of country thus thrown open to the production of sugar, by a timely immigration from the more northern and cotton-growing regions of the South, where slave-labor has ceased to be remunerative, would in a few years supply the demand for that article, not only in the United States, but to a considerable extent abroad. The cheering fact is thus exhibited, that, no matter how rapidly the population of our common country may increase; no matter how far our northern brethren may stretch out and occupy their utmost limits, the annexation of Texas will have made the Union independent of foreign supply in this, one of the great and growing necessities of life. Texas will always be a grazing and agricultural State, and in exchanging her staple productions, sugar and cotton, for the manufactures of the North, she will contribute a strong link to that chain which binds us as one people. Between the manufacturer of Massachusetts and the planter of Texas, there is destined to be an intercourse of mutual interests. Identified in language, in ancestry, in the love of free institutions (as applied at least to white men), they have now, for weal or for wo, a common fate, and an equal claim to the recorded glories of Bunker Hill and San Jacinto. But Massachusetts hitherto has been shy and cold. At every opportunity, fit or unfit, she has had her fling at Texas. At our admission into the Union, and since, she has spurned our offered olive branch. We now hold up to her a lump of sugar—if she rejects that, and throws cold water at us, in mercy let it be in ice.

Another leading staple of Texas is Indian Corn; and though the southern portion of the State is not the best adapted to its production, yet the crop is generally abundant, and in fair seasons, on good soil, an average yield of fifty bushels to the acre may be relied on. Seventy-five bushels to the acre have, for several successive years been raised on the cane lands of Oyster Creek, a small stream running parallel with the Brazos. But it can never be made an article of foreign export on account of the weevil, which frequently commences its ravages in the field, and always injures the corn in weight and quality. Various experiments have been made to destroy that insect or prevent its appearance, but as far as I can learn without success. The man who can discover a remedy against it would do almost as much service as one who could point out the means of destroying the caterpillar.

In addition to the great staples enumerated, tobacco, rice, millet, wheat, the vine in its varieties, indigo, hemp, oranges and other trop-

ical fruits—in fact anything that may be grown and cultivated in Louisiana may be made here an equal source of profit and support. Tobacco for cigars has been cultivated in our lighter soils, of a quality equal to any in the United States, though it must be admitted that the genuine *Havana flavor* is proper only to the island of Cuba. It is as utterly impossible to make a *Havana cigar* out of American tobacco, as that a Yankee grocer should counterfeit successfully the delicate wines of La Belle France.

Rice, if the season should be a wet one, or on land susceptible of irrigation, may be cultivated here, if not as an article of export, at least as a table luxury; and I have succeeded several years in making two crops from the same planting. Potatoes, the sweet and Irish, yield an abundant return for the labor bestowed on them; and indeed, there is no part of the United States where an industrious man can live so easily, and in such abundance, as in Texas. Apart from the fertility of the soil, the mildness of the climate, and the rapidity with which vegetation matures, a never-failing support is to be found in our beautiful and boundless prairies. If a blight like that which has desolated Ireland should spoil the labor of the husbandman, a resource against famine might always be found in “the cattle upon a thousand hills.”

As an illustration of the ease and abundance with which a laboring man in this country may support himself, I will refer to an instance which has this year come under my observation. The man to whom I allude, in January planted a small piece of ground in Irish potatoes. As soon as the crop matured, he dug the potatoes, and plowing the ground afresh, planted it in Indian corn; when the fodder was gathered, he threw up ridges between the corn rows and set out the sweet potatoe vine, which now promises an abundant crop. After digging his potatoes in the fall he intends sowing turnip seed on the same ground, thus realizing, as I think he will, four crops in the year. This is crowding too much on the land; it is what a jockey would call “riding a free horse to death;” but it proves what I set out to establish, that this is a good country for an industrious man—for a Yankee, a Scotchman, an Englishman, a German—for anybody but a drunkard and an Irishman.

The face of the country bordering on the coast and embracing the bottom lands of the Brazos and neighboring streams, is very flat, and indicates fever and ague, and all malarial diseases. But such is not the fact. The earth is easily and frequently covered with water; but either from the absorbing and porous qualities of the soil, or the rapid evaporation under a summer's sun, is as quickly dried off. It is generally therefore very wet or very dry, neither condition being unfavorable to health. Added to this circumstance, and it is perhaps the more important of the two, an invigorating sea breeze is regularly felt in the summer far into the interior. Whatever be the cause we only state the fact, that Brazoria county, in a low latitude, the richest in soil and with a general appearance fruitful of disease, is decidedly among the most healthy in the State. Instances of similar location and perhaps equal health are found on the bayous near the sea-coast in Louisiana. In May of the present year the highest range of the thermometer was 85° the lowest 66° Fahr. The hottest day I have

felt during the summer was on the sixth day of August, when the mercury rose to 89° in the shade. At the greatest heat I suspended the thermometer on a post exposed to the sun, when the mercury rose to 96°. Fanned by a regular sea breeze in a temperature so even, diseases originating from climate are of rare occurrence and of the mildest type.

The valley of the Brazos for a distance of five hundred miles from the coast, following the windings of the river, is unsurpassed in richness and variety of soil by any equal extent of country in North America. The river at a low stage of water is only navigable for sixty miles, but by the removal of slight obstructions at four points, could be made navigable for steamboats of light draught to Washington, three hundred miles by water from the mouth. Velasco, situated at the outlet of the river, is now a summer retreat for the planters in the interior, exhibiting no trace (except in ship building) of its former enterprise and trade. It was once, until Galveston bore away the palm, the principal shipping port in Texas, and but for the shallowness of water on the bar, would be decidedly the most eligible point on the coast for a large commercial town. It has a safe and excellent harbor, and after crossing the bar twenty feet water may be found for many miles up the river. The bar is narrow about 800 yards from the shore, and varies in depth from six to eight feet. It is thought by those captains who have sailed into this port that the channel might be permanently deepened to twenty feet water. A scientific examination by competent engineers has never been made, and it would be well for the general government to direct a special survey for that object, as there is live oak enough on the Brazos river to supply the wants of the navy for a century. If the deepening of the bar is at all practicable, it would be truly a national object, and it is at least worthy an examination. Texas is very deficient in harbors accessible to the lighter class of war vessels, and if artificial means can be employed to supply that deficiency, there is no point at which the attempt can be made with better prospect of success, or with more general advantages than at the mouth of the Brazos. The trade of this river, covering as it now does and will the heaviest shipment of cotton and sugar made near any other stream in Texas, requires a better outlet than over the bar as it now is; and a company, at the head of which is General Hamilton, of South Carolina, are engaged in cutting a canal from a point on the Brazos river twenty miles above its mouth to Oyster Creek, and thence into Bastrop bay, intending San Luis as the outlet. That section of the canal to Bastrop or San Luis bay will be completed this winter.

But little is known about the head waters of the Brazos. I doubt if its source has ever been explored by a white man. It is a muddy, uninteresting stream, its margin thickly studded with evergreen, and from its precipitous sides presenting rather the appearance of a large ravine during a freshet, than the gushing waters of mountain origin. Its banks will never be like those of the Rhine, the birthplace of poetic inspiration. The water is unfit to drink, and those who from necessity use it, frequently suffer in health. Its main branch is fed high up by innumerable streams contributing their ingredients to form as it would seem a most villainous beverage. Among the many

creeks or small rivers emptying into the Brazos, are the "Limestone fork," "the Salt fork," the "Sulphur fork," and the "Alum fork."

By the way, in the summer of 1844, after a freshet in the river which had partially subsided, the water from being very red and muddy became suddenly clear; the impurities were deposited at the bottom, and fish could be distinctly seen at the depth of over ten feet. The phenomenon created some alarm, and was only explained on the supposition that there was a rise in the "Alum fork" branch; at least we were all content to attribute it to that cause.

But, sir, I am traveling beyond my limits. I set out with the intention of publishing in your valuable periodical the statistics of Brazoria county; I am unable fully to complete my design. The following statement (though correct as far as it goes, and taken from the books of the assessor) is still incomplete, as he has not yet finished his labors.

BRAZORIA COUNTY, TEXAS.

White population.....	1,502
Negro ".....	2,908
Cattle.....	23,276
Horses.....	1,517
Acres in sugar-cane.....	2,600
" in cotton.....	7,054
" in corn.....	4,795
" in sweet potatoes.....	320

The present flattering appearance of the crops warrants the following calculation as to the production; the price, of course, may vary with the fluctuations of trade:

2,600 acres in cane, producing 1,500 lbs. sugar per acre, at 6 cts. per lb. . .	\$234,000
7,054 " in cotton, " 500 lbs. ginned cotton per acre, at 10 cts. . .	352,700
4,795 " in corn " 40 bushels per acre, at 40 cts. per bu.	76,720
320 " in sweet potatoes, pro. 300 bu. per acre, at 25 cts. per bu.	23,000
	\$686,420

This exhibit does not include Irish potatoes, peas, beans, rice, millet, fodder, oats, and tobacco, all of which are cultivated to some extent. These items, with the molasses from the sugar crop, would swell the aggregate production of the county to at least \$750,000. If there is another county in the United States of equal population whose strictly agricultural statistics present so fair a showing, we waive our claim to the *Banner* without a murmur.

* A friend writes us from Texas a few weeks ago: "The crops of cotton, sugar, and grain are No. 1. In the sugar district, that is, the coast country, they will make 3,000 hogsheads of sugar." Hurrah for Texas!

Art. VI.—PROGRESS OF AMERICAN AND FOREIGN COMMERCE. AGRICULTURE AND MANUFACTURE.—No. II.

RETROSPECT OF THE YEAR 1846—47—REVULSIONS IN ENGLAND—
BRITISH CORN TRADE—AGRICULTURE OF GREAT BRITAIN—PROSPECTS OF FUTURE CROPS—FOOD ON THE CONTINENT OF EUROPE—
POTATO YIELD—HARVESTS—BRITISH PRODUCE MARKET—MONEY MARKET OF EUROPE—COMMERCE OF THE UNITED STATES, 1846—47—
EXCHANGES—AMERICAN FINANCES—AMERICAN PRODUCE MARKET—UNITED STATES EXPORTS, IMPORTS AND DUTIES.

THE year which has elapsed has been fraught with events of the highest interest to the commercial world, and has afforded singular evidence of the strength and independence of the position occupied by the United States, as compared with that of Great Britain. That country from a condition of great apparent prosperity in the summer of 1846, has been in a few short months plunged in an extremity of distress, that for a time threatened even the stability of the existing social order of the empire. The fact that the leading commercial nation of the world is exposed to such sudden transition and awful reverses, no matter what may be the immediate cause, while the United States has, since the general explosions of the paper system in 1837, recovered its elasticity and steadily progressed in a prosperity which it is not easy to shake, affords evidence of vital decay in the commercial affairs of the Empire. In the summer of 1846, England was rich in the precious metals to an unexampled extent, her available capital, as represented in stocks of all descriptions of goods and produce, larger than ever before—provisions abundant and cheap, and the people well employed and prosperous. In a few short months the inhabitants of the islands were starving by thousands, the corn laws and navigation act, which had been undisturbed for nearly two centuries, were, in respect to them, repealed; stocks of goods had become nearly exhausted, exchanges were against England, half the bullion gone from the country, her merchant princes failing by scores, the rate of interest advanced to a point never reached since the reign of Queen Anne, and the very solvency of the government apparently at stake. This terrible revulsion is ascribed to many causes, the chief of which are, the failure of the crops, the railroad expenditures, and the action of the new bank charter bill. There is no doubt but the first two of these are main causes of the disastrous revulsion which we have witnessed, and as far as the insufficiency of the crops goes, is not only an incurable one, but one which recurs with increasing frequency and severity, and which must annually be of greater importance in its effects. It was not until toward the close of the last century that Great Britain ceased to be an exporter of grain, and not until after the close of the American Revolution did the importation exceed the exports to any serious amount. The events of the French war doubtless interfered to a considerable extent with her agriculture. The years 1800 and 1801 were of deficient harvest, and the first in England's history of large importations of breadstuffs. In these two years the harvests were short, and it was found that the population being 10,472,048, a bad harvest was

insufficient to feed it without an importation of 2,409,445 qrs. in each year. Ireland, at that time, had not begun to yield supplies; but the importation commenced with the union, and has gradually progressed, until, since 1828, about 3,000,000 qrs. per annum have been derived from Ireland. Since then, at each recurrence of a bad harvest the demands for foreign supplies have been more extensive, the wants of the population encroaching upon the capacity of the islands to feed them, until even in years of good harvests they do not yield sufficient without foreign aid, and every succeeding variation from the utmost capacity of the soil to produce, is productive of greater distress. The year 1816 was one of short harvest, and the distress was very great. From that time to the present England has never ceased to import largely.

IMPORT OF WHEAT AND WHEAT FLOUR INTO GREAT BRITAIN,
NATURE OF HARVEST, BULLION IN BANK, AND POPULATION OF
THE UNITED KINGDOM.

Years.	Harvest	Imported—qrs.	Price of wheat	Bullion in Bank	Population.
1816	scarcity	332,491	78s.	6d. 4,640,880	19,826,571
1817	average	1,089,855	96s. 11d.	9,680,920	20,092,734
1818	"	1,694,261	86s.	3d. 10,055,460	20,362,511
1819	short	625,638	74s.	6d. 4,184,620	20,635,870
1820	abundant	996,479	67s. 10d.	4,911,050	20,912,899
1821	average	707,384	56s.	1d. 11,869,900	21,193,548
1822	"	510,602	44s.	7d. 11,057,150	21,482,931
1823	short	424,019	53s.	4d. 10,384,230	21,776,265
1824	average	441,591	63s. 11d.	13,810,060	22,073,604
1825	not an average	787,606	68s.	6d. 8,779,100	22,375,003
1826	average	897,127	58s.	8d. 2,459,510	22,680,518
1827	"	711,868	58s.	6d. 10,159,020	22,990,205
1828	scarc	1,410,300	60s.	5d. 10,347,290	23,304,120
1829	average	2,190,095	66s.	3d. 6,835,020	23,622,322
1830	"	2,205,751	64s.	3d. 9,171,000	23,944,868
1831	not an average	2,868,860	66s.	4d. 8,217,050	24,029,702
1832	abundant	1,254,351	58s.	8d. 5,293,150	24,603,177
1833	"	1,166,457	52s. 11d.	6,520,130	24,939,116
1834	"	981,486	46s.	2d. 6,781,030	25,279,642
1835	"	750,808	39s.	4d. 6,305,000	25,624,817
1836	"	861,156	48s.	6d. 4,511,110	25,974,705
1837	short	1,109,492	55s. 10d.	7,251,130	26,129,371
1838	scarc	1,923,400	64s.	7d. 9,362,000	26,288,879
1839	short	3,110,729	70s.	8d. 2,887,000	26,350,170
1840	average	2,526,645	66s.	4d. 3,557,000	26,443,495
1841	"	2,923,189	64s.	4d. 5,031,000	26,711,694
1842	good	2,927,985	57s.	3d. 11,054,000	27,005,521
1843	"	1,072,120	50s.	1d. 13,933,000	27,302,581
1844	"	1,377,996	41s.	4d. 14,886,352	27,602,908
1845	"	1,147,649	48s.	2d. 13,268,771	27,906,539
1846	"	2,394,531	58s.	2d. 16,353,848	28,213,510
1847 (6 mos.)	"	1,476,488	90s.	1d. 9,253,180	28,523,858

This table embraces the wheat and wheat flour only, imported from foreign countries, and taken into the consumption of Great Britain in the thirty-two years, during which 9,000,000 people have been added to the population. Since 1839, the wheat harvest has been good, and was so last year. It will be observed, that for the ten years ending with 1830, during which some 3,000,000 were added to the number of the inhabitants, that the increase of food produced in the islands must have been very great; inasmuch as that the impor-

tation was not large, and prices not high. During the bad harvests of 1829-30-31, the quantity of food per annum imported was immense; but, from 1832 up to 1838, the quantity imported was small, showing a great abundance of home grown corn. A considerable portion of the increase was derived from Ireland, and from the improved system of culture, notwithstanding the low prices that ruled in those years. Since the harvest of 1837 failed, the importations have been large, notwithstanding, that since 1839 the English wheat harvests were good. Now, it is apparent that the production of grain must have been very extensive to meet this large increase of demand through the increased numbers of the population, or that some other article of food has entered more extensively into the consumption of the working many. In M'Culloch's statistic account of the empire, the quantity of land in the United Kingdom is given as follows:

	England.	Scotland.	Ireland.	Total acres.
Arable and gardens..... acres	11,143,370	2,553,725	8,000,000	21,697,095
Meadows, pastures, and marshes..	17,605,630	2,489,725	6,603,000	26,698,355
Total acres.....	28,749,000	5,043,450	14,603,000	48,395,450

These lands are estimated to be distributed in agriculture, as follows:

	England.	Scotland.	Ireland.	Total.	Prod. per acre.	Yield.
Wheat.....	3,800,000	220,000	500,000	4,520,000	26 bu.	117,520,000
Barley and rye...	900,000	260,000	200,000	1,360,000	32 bu.	44,160,000
Oats and Beans ..	3,000,000	1,375,000	1,100,000	5,475,000	64 bu.	350,400,000
Potatoes & turnips	1,200,000	200,000	2,000,000	3,400,000	9 tons.	30,600,000

Now, it is evident, that if this product was sufficient for 20,912,899 persons in 1821, it could not have been sufficient for 28,523,858 in 1847, without a very material increase in breadth of land, and improvement in agriculture; both of these have taken place to some extent, and have so far increased supply, that when all the crops are good as in 1844, but little wheat is needed from abroad. The increase of the culture of wheat is, however, by no means equal to the increased consumption of food, the demand for which must at least have kept pace with the swelling numbers of the people, and also by an increased consumption *per head*. A considerable increase took place in the supply of grain from Ireland, that is to say, in 1820, 1,415,000 qrs. mostly oats, were received from that quarter, and was increased to 2,855,000 qrs. in 1842.

The principal means by which the supply of wheat has been eked out, has been in the increased use of potatoes and coarser food by the people. Owing to the superior yield of potatoes, it is known that one acre planted with them will support as many persons as *three* acres planted with wheat, or as four planted with oats. Therefore, if all the arable land being planted with wheat, supported a certain number, say 20,000,000, it would, if all planted with potatoes support 60,000,000, and in that proportion, according to the land planted with potatoes. Exactly in this proportion, also, would the distress produced by a failure of potatoes be increased, and on the abandonment of that crop, the difficulty of returning to grain be enhanced. When wheat is high its consumption will be diminished, and potatoes and coarse grains substituted. As every acre cultivated with potatoes will yield

three times the human food that can be derived from one planted with wheat or oats, the dependence upon that crop has become very great, and the increase of its culture has enabled the manufacturing population to swell in numbers, where, had they been confined to wheat, the same land would have sufficed for one-third only of the people actually subsisted. During the years 1845-6, the potatoes and coarse grains of England failed, and the wheat crop was good. The great revulsion of the year 1839, was produced by the shortness of the wheat crop—the coarse grains not being so much affected. The consumption of the different kinds of imported grain was in each of those years as follows :

FLOUR AND GRAIN IMPORTED INTO ENGLAND.

1839.		1846-7.		1839.		1846-7.	
qrs.		qrs.		cwt.		cwt.	
Wheat	2,521,191	2,520,793	Wheat flour	665,692	4,524,875		
Barley	594,485	646,166	Oat and barley				
Oats	864,240	1,144,531	meal	574	36,989		
Rye	152,521	18,474	Indian meal	1	386,293		
Peas and Beans	293,262	566,407	Buckwheat meal		296		
Maize	14,528	1,802,384					
Buckwheat	1,916	37,975					
			Total	666,267	5,248,453		
Total	4,642,063	6,936,730	Equal to qrs.	189,884	1,499,000		

The whole consumption of 1839 was, it appears, equal to 4,531,947 qrs., and of 1846-7, 8,435,730 qrs. The importation of 1839, supplied the actual wants of the people, while those of 1846-7 did not prevent famine to an alarming extent. This affords singular evidence of the degree in which potatoes and the coarse grains enter into the consumption of the people. If we compare prices of 1839 with those of May, 1847, we observe that a large foreign supply failed to depress them.

	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
1839	70s. 8d.	39s. 6d.	25s. 11d.	42s. 0d.	41s. 3d.	41s. 2d.
1847	102s. 5d.	56s. 5d.	36s. 3d.	73s. 11d.	59s. 10d.	59s. 3d.

With a foreign supply nearly doubled, the prices remained 50 per cent. higher than in 1839.

These are the terrible results of a failure of the potato crop, when the wheat harvest was good. The year 1839 was one of the highest prices and most disastrous results since the year 1819, and in seven years has recurred a failure of still greater magnitude. The population has increased in that time over 2,000,000 in number, and their ability to consume more food per head was enhanced in 1846-7, through the enormous railroad expenditure; yet the probability is that they did not eat more than they required. The effect of the potato failure has been to diminish, if not nearly destroy, confidence in that root; so much so, that it has been calculated that the planting of the present year has been 1,006,663 acres, instead of 3,400,000 acres, the usual quantity. The 2,400,000 acres thus changed from potatoes to other food, will support only one-third the number of people that they did under potatoes—that is to say, for example, if planted with potatoes they supported 12,000,000 people, they will sustain under other crops but 4,000,000; or in other words, to produce the same quantity of human food obtained from 2,400,000 acres

in potatoes, will require 7,200,000 in other crops; a quantity not to be supplied in the islands. These means of England's hitherto continued prosperity, under the swelling numbers of her people have suddenly failed, and she feels the excess of a population beyond what her soil will support on grain and coarse crops. This is the great difficulty against which she has to contend. That Europe can be supplied with food from the United States and Europe to almost any extent, is true; but her people must still earn it in some shape; and if in manufactures, it must be in such articles as the corn countries want, and they must be supplied to them cheaper and better than they themselves can make them. Her ability to do this is fast leaving her. Her vast natural advantages and great capital have hitherto enabled her to maintain her manufacturing superiority, but only through constantly declining prices, underbidding the world. When, however, money and food is cheap on the Continent and in the United States, and these articles are comparatively higher in Great Britain, through the necessity of importing a large proportion of food, the chief advantages that she has hitherto enjoyed will be lost. Manufacturing enterprise is in full activity in Europe, as in the United States, and all those countries are rapidly rivaling England in the branches of her peculiar industry, and becoming less dependent upon her for goods, while she is become daily more so upon them for food.

As this matter of food is the main cause of the financial difficulty which has overtaken England, and presents but little prospect of remedy, the future has an unpromising aspect. That the crisis has been heightened by the vast expenditures in railroads is doubtless true, inasmuch as that the floating capital of the country has been locked up in those fixtures, and the great outlay of money has enabled the people to consume a greater quantity of exchangeable commodities, while they have produced less. To ascribe these results to the working of any particular banking system, as the politicians of England are now doing, is but to regard the matter in a superficial view. The difficulty is an actual over-consumption of floating capital, produce, and goods, at a time when Nature has refused her usual supply. No system of *credits* could supply this deficit; on the contrary, the greater the amount of outstanding obligations when the crisis came, the more wide-spread and disastrous would have been the results.

For the coming year the best estimates make the English supply of food about equal to the last, supposing that what acres are planted with potatoes should show no disease. Hence her wants from abroad will be as large. Throughout Europe the crops are universally represented as abundant; but inasmuch as the stocks of old corn were supposed exhausted last year, the supplies of this will not more than make good those stocks, and the chief supplies of England will probably come from this country, more particularly should she continue the navigation laws suspended, in order that a free supply of vessels may permit the means of transport at low freights through the winter and spring, when the ports of the north of Europe are closed. No matter how great soever may be the crops of the interior of Europe, they cannot be harvested and reach market before the winter sets in, and will therefore not be available in England until the spring. One

great cause of the large consumption of food and foreign produce will be continued, viz.: the railway expenditure. It appears from official statements that the calls and loans authorized for railways at the two sessions of 1845-6, were £124,675,655—say \$600,000,000. The portion of this actually raised and spent down to August, 1847, was £28,320,020, leaving £96,355,635 yet to be raised by companies, the directors of which still avow their determination to complete the lines by May, 1849. In addition to this there are projects to be acted upon by the next Parliament, to authorize the expenditure of £34,161,674 on roads already opened, and £16,325,000 on new lines. Of these, probably £24,000,000 will be authorized, and the whole will require the outlay of £1,200,000, or \$6,000,000 per week for 120 weeks. If the expenditure of £28,320,020 has aided in the production of the present unparalleled state of the London money-market, what will be the effect of the outlay of £60,000,000 more in the coming year? The possibility of effecting this expenditure is very questionable. In order to observe the effect of conflicting causes on the consumption of foreign products in England, we may compare the quantities of certain articles taken into consumption in Great Britain in 1838-9, and in the first six months of 1846-7, when the pressure was highest.

IMPORTS AND EXPORTS OF GREAT BRITAIN FOR THE YEARS 1838
AND 1839, AND SIX MONTHS OF 1846 AND 1847.

Imports.	1838.	1839.	Decrease.	1846.	1847.	Increase.
Cattle, No. . . . .	.....	.....	.....	26,877..	61,989..	35,112
Provisions, cwt. . . . .	.....	.....	.....	127,666..	244,601..	116,935
Butter, cwt.	251,592..	213,328..	38,264..	107,828..	168,049..	60,221
Cheese, cwt.	217,296..	201,391..	15,905..	127,480..	174,122..	46,642
Coffee, lbs.	25,765,673..	26,789,945..	.....	20,024,706..	24,685,173..	4,660,467
Sugar, cwt.	3,909,665..	3,825,599..	84,066..	2,426,193..	2,965,399..	539,206
Rum, gals.	3,135,651..	2,830,263..	305,388..	1,190,836..	1,555,561..	344,625
Brandy, gals.	1,203,435..	1,167,756..	35,679..	575,677..	710,221..	134,544
Tobacco, lbs.	23,149,726..	22,773,905..	375,821..	13,239,248..	13,307,975..	68,727
EXPORTS	£50,060,970..	53,233,580..	.....	£25,020,972..	25,394,243..	373,271

In 1839, when, through the large importation of corn, as seen in the above, the Bank of England had its bullion reduced to less than £2,500,000, and raised the rate of interest over 5 per cent., thus, for the first time, availing itself of the modification of the usury laws, the effect was to check the consumption of all foreign produce and domestic goods, and, therefore, to promote the exports of English goods, favorably affecting the exchanges, and restoring the tone of the money-market. This year the large railway expenditure has counteracted that movement, and the consumption of all produce has been promoted, as well by the large wages paid to the people, as by the reduction of the duties and excise under the policy of 1842, while the scarcity of raw materials has checked the manufacture of goods and thereby lessened the exports. The severe pressure which has taken place on the continent of Europe for food, has greatly decreased the demand for English goods. The large crops and probable low prices which will prevail in Europe this year, must ultimately stimulate a demand for English manufactures, and by so doing tend to support her exchanges in face of large continued imports of produce. The condition of the money-market of Europe does not appear, how-

ever, to be flattering. The rate of money at Hamburg and at Frankfort-a-Maine, was $4\frac{1}{2}$ per cent. and rising; but the finances of France were gloomy. A loan for 370,000,000*fr.* was announced by the French government, and its approaching payment hung gloomily over all the financial circles, while the aspect of the political horizon in all quarters was by no means such as to impart general confidence.

The result of the year's business in England had been productive of a panic as great, perhaps, as ever before was experienced. The continued efflux of bullion had compelled the bank to raise the rate of interest successively to $4\frac{1}{2}$, 5 a $5\frac{1}{2}$ per cent., as the *minimum* rate of discount for 30-day bills, and the pressure so produced had precipitated a fall in breadstuffs, involving the insolvency of many eminent firms, mostly in the corn-trade, whose outstanding liabilities were estimated at over £3,000,000. The currency of the kingdom was indeed far from satisfactory, being as follows:

	1846.		(April 24.)		1847.	
	Notes.	Specie.	Notes.	Specie.	Notes.	Specie.
Bank of England	20,311,148	13,682,636	20,062,824	9,664,298		
Private banks	4,656,134		4,725,315			
Joint Stock banks	3,264,489		3,301,057			
Scotch banks	3,096,317	1,187,940	3,395,524	1,290,696		
Irish banks	7,572,323	2,106,850	6,521,234	1,992,545		
Total	38,900,401	16,976,726	38,025,954	12,947,469		
Decrease on year			874,447	4,029,257		

	1846.		(July 17.)		1847.	
	Notes.	Specie.	Notes.	Specie.	Notes.	Specie.
Bank of England	20,367,435	15,899,093	18,648,945	10,232,051		
Private banks	4,410,325		4,339,068			
Joint Stock banks	3,089,431		3,034,021			
Scotch banks	3,390,060		3,495,921			
Irish banks	6,686,491		5,257,378			
		3,414,183		3,495,921		2,777,160
Total	37,943,746	19,313,276	34,774,623	13,009,211		
Decrease on year ..			3,169,123	6,304,065		

This is an important decline in the currency of Great Britain, and it was still farther reduced by the export of £1,000,000 to Europe and the United States up to August 7, when the panic was at its height. The probability is that the return of low prices on the Continent by reason of the good harvests, would affect still more unfavorably the English exchanges, but for the violent fall in breadstuffs produced immediately by the bank action in the first week in August, and continued to the close of that month. It may be inferred, however, from the low state of the currency indicated in the above table, as compared with last year, simultaneously with low prices of manufactured goods, that the prices of produce were but little inflated by speculation, but that short supply and effective demand had alone sustained them at so high a level.

The business of the United States has remained surprisingly firm and steady in the face of the great fluctuations that have overtaken the English markets. In a former number we remarked on the comparative stability of commercial affairs in the United States, since the proportion of specie in circulation had been enhanced, and the floating credits diminished. The large exports of farm produce to England of this year have afforded a safe basis for a large amount of

sterling bills, which have ruled low throughout the year. These bills are drawn against the actual produce, and not against credits, as was the case in former years, and although they have been in the last month affected to a considerable extent through the fall in the prices of produce in London, they have not been subject to dishonor by a mere capricious withdrawal of credit connected with United States produce, although London merchants have been struck down by the ruthless action of the bank. From the 1st of September last year, when cotton began to rise in value by reason of the short crop, and the supply of bills was enhanced through the extensive export of farm produce, foreign bills began to decline, and continued to do so down to the packet of April 1st, when they reached the lowest point, as follows :

RATES OF FOREIGN BILLS IN NEW YORK, SEMI-MONTHLY BY THE STEAMERS.

	Sterling—L.	Paris—francs.	Amsterdam—flor.	Antwerp—flor.	Hamb.—marcs.	Brem. rix Ⓔ
Sept. 1.84	@9	5.31½ @5.30	39½ @39½	39½ @39½	35¼ @35¼	78½ @79
" 15.9	@9½	5.30 @5.28½	39½ @39½	39½ @39½	35¼ @35¼	78½ @79
Oct. 1.84	@9	5.30 @5.28½	39½ @39½	39½ @39½	35 @35½	78 @78½
" 15.8	@8½	5.31½ @5.30	39 @39½	39½ @39½	34½ @35½	78 @78½
Nov. 1.64	@7½	5.37½ @5.32½	38½ @38½	38½ @39	34½ @35	76½ @77½
" 15.64	@7½	5.40 @5.37½	38½ @38½	38½ @39	34½ @35½	77½ @78½
Dec. 1.64	@6½	5.41½ @5.40	38½ @39	38½ @39	34½ @35	77½ @77½
" 15.54	@6½	5.42½ @5.41½	38½ @39	38½ @39	34½ @35	77½ @77½
Jan. 1.5	@5	5.45 @5.42½	38½ @38½	38½ @38½	34½ @34½	77 @77½
" 15.54	@6	5.43½ @5.42½	38½ @39	38½ @39	34½ @34½	77½ @77½
Feb. 1.54	@6½	5.40 @5.37½	39½ @39½	39½ @39½	34½ @35	77½ @77½
" 15.54	@5½	5.40 @5.38½	39½ @39½	39½ @39½	34½ @35	77½ @77½
Mar. 1.44	@5½	5.41½ @5.40	39½ @39½	39½ @39½	34½ @35	77½ @78
" 15.34	@4½	5.45 @5.43	38½ @38½	38½ @38½	34½ @34½	77½ @77½
Apr. 1.34	@4½	5.48½ @5.45	38½ @38½	38½ @38½	34½ @34½	77½ @77½
" 15.5	@5½	5.43½ @5.42	38½ @38½	38½ @38½	34½ @35	77½ @77½
May 1.6	@6½	5.36½ @5.35	39½ @39½	39½ @39½	35½ @35½	78 @78½
" 15.64	@7½	5.32½ @5.30	39½ @39½	39½ @39½	35½ @35½	78 @78½
June 1.64	@7½	5.31½ @5.28½	39½ @39½	39½ @39½	35½ @35½	78½ @78½
" 15.54	@5½	5.33½ @5.32½	39½ @39½	39½ @39½	35 @35½	77½ @78½
July 1.54	@6½	5.32½ @5.31½	39 @39½	39 @39½	34½ @35½	77½ @78½
" 15.54	@6½	5.32½ @5.31½	39½ @39½	39½ @39½	35½ @35½	77½ @78
Aug. 1.54	@6½	5.33½ @5.32½	39½ @39½	39½ @39½	34½ @35½	77½ @78
" 15.6	@6½	5.33½ @5.32½	39 @39½	39 @39½	34½ @35½	77½ @78
Sept. 1.64	@7	5.31½ @5.30	39½ @39½	39½ @39½	35½ @35½	78 @78½
" 15.84	@9	5.26½ @5.25	39½ @39½	39½ @39½	35½ @35½	78 @79

The rates of April 17 were 3½ a 4½ per cent. in New York, and 1 a 2½ per cent. in New Orleans; lower than has been known to be the case for many years; and the influx of specie from England to the United States continued large up to that time, when it had begun to excite uneasiness on the part of the bank, so much so that that institution took measures by refusing to discount bills to check it, and this had the effect of sending the rate up to a point which nearly stopped the farther movement of specie. The steamer which left England May 4, had on board £255,000 of specie. The shippers of £105,000 of this amount were, however, induced again to land it before she sailed, under the representations of the Bank of England.

The legitimate effect of a refusal to discount United States 60-day bills of exchange under such circumstances, would have been to depress the price here for 60-day bills, because they being unavailable for 60 days, they were less valuable as a prompt remittance. The

importation of goods, however, began to increase, and the demand for bills from this circumstance, aided by the large quantities of specie which had been already received, raised the rate.

The continued large shipments of produce, however, again flattened the market, and the packet of August 1st brought £70,000, and that of the 19th £30,000, with indications that should sales of produce continue after the new cotton crop began to go forward, farther and larger demands for specie would be made, more particularly that the prices of breadstuffs continued very high, in the face of falling markets on the Continent, the exchanges being already in favor of Europe. With the specie taken for the United States August 1, the amount drawn out of the bank was some £500,000, for the last week in July, a state of things that called for prompt action on the part of the Directors, who, by putting up the rate of interest suddenly to 5½ a 6½ per cent., took the surest means of checking farther exports of specie. The movement produced a panic in the London markets, a large fall in the prices of corn, and extensive failures among the dealers. Although a large amount of American bills was in consequence dishonored, but few came back, being protected by friends. The demand for bills, to cover their non-accepted bills, by the packets of the 1st and 16th of September, however, caused such an advance in the rates in New York, as almost to endanger a re-shipment of coin.

The failures in London were the remote cause of the stoppage of the oldest bill and banking house in New York, that of Prime, Ward, & Co., formerly Prime, Ward, & King—James G. King having retired last spring from the firm. The liabilities of the house are between two and three millions. The house enjoyed the highest character for many years, and was the recipient of a large amount of deposits from neighboring banks, and from individuals. It appears that their advances on New Orleans produce in the latter part of the season had absorbed a large margin, and bills to a considerable amount were running on Giles & Co. of London when that house stopped under "the screw" of the bank. Messrs. Baring, however, holding bills of lading, covered the bills. The news of the dishonor of the bills, however, induced the withdrawal of deposits here, and weakened the house at the moment when some stock speculations, terminating unfortunately, required all their means. By a succeeding packet it was reported, that bills of which acceptance had been refused by Overend, Gurney & Co., were finally honored. There were rumors unfavorable to the standing of certain banks and houses growing out of this failure, but apparently unfounded.

These fitful and spasmodic actions of the British bank produce individual disaster, but cannot be of general benefit. If the corn-dealers who were so unceremoniously struck down had been forcing importation of food on speculation, and through too great facilities granted by the bank for its own profits, the fault was in granting those facilities; but if the importation was regular, and such as is demanded by the actual wants of England, the bank cannot, by inflicting temporary ruin upon a few houses, stay the ultimate importation to its fullest extent. If the cause of the adverse exchanges is the great excess of consumption of foreign goods beyond exports, growing out of deficient harvests and great absorption of capital in railroads, the remedy

is only to modify those expenditures. It is not by ruining the importer of the produce that the matter can be reached. In fact the Bank of England seems rather to be a government machine than a commercial institution, inasmuch as that in all cases it displays a willingness to sacrifice merchants rather than to put restraints upon the government financial operations; its subserviency to the latter has frequently been a remote cause of commercial disaster.

The large and generally profitable sales of American produce abroad, have been the healthy basis of an extended and active fall trade. The importations have been large, yet the stocks of goods in New York are low and more broken in assortment than usual. Both domestic and imported goods have met with extensive and lucrative sales.

The progress of the import trade as the season advanced, and its effect upon the government revenue, are indicated in the following monthly table of importations and duties at the port of New York:

IMPORTS AND DUTIES AT THE PORT OF NEW YORK MONTHLY,
1847. 1846.

	Specie.	Free Goods.	Dutiable.	Duties.	Dutiable.	Duties.
December..	\$61,346..	\$537,496..	\$4,279,813..	\$1,143,327..	\$3,499,991..	\$1,056,896
January...	90,874..	478,443	5,499,682..	1,434,836..	4,842,884..	1,471,845
February..	1,235,122..	285,128..	5,889,387..	1,496,716..	4,177,952..	1,255,651
March....	1,329,458..	786,937..	6,060,746..	1,652,092..	8,657,793..	2,608,734
April.....	3,397,064..	1,987,033..	8,339,429..	2,109,405..	4,105,393..	1,373,752
May.....	1,326,697..	738,753..	5,868,261..	1,487,172..	4,160,300..	1,268,052
June.....	547,813..	401,358..	5,689,109..	1,444,771..	4,605,527..	1,462,198
July.....	294,219..	861,518..	7,950,602..	2,068,335..	5,411,595..	1,651,652
August....	195,155..	404,290..	12,974,196..	3,412,635..	7,585,427..	2,168,639
Total....	8,467,748..	7,480,956..	62,551,225..	16,249,289..	48,986,862..	14,317,419
Increase...	7,946,239..	.....	13,564,363..	1,931,870..	.....	.....
Decrease...	.....	1,335,661..	.....	.....	.....	.....

It is observable that the specie import, which was large at this port in the four months ending with May, was small during the three months ending with August. By far the largest proportion of the specie imported into the country arrived, however, at Boston, by the Cunard line of steamboats; and at the two ports, probably, the amount reached over \$30,000,000. The imports and duties for the month of August are the largest ever known at this port in one month. The figures do not include the quantities sent into warehouse, which are mostly of those goods, as wines, sugars, silks and dry goods, that are charged with the highest duties. The present tariff, at this port, has yielded near two millions more, during the nine months it has been in operation, than did the old for a corresponding period. This fact is, however, to be ascribed, doubtless, in some degree, to the large sales of produce abroad, the returns of which must necessarily come back to the country in some shape. In the early part of the year, when money was abundant in England and goods low here, it came as specie. Gradually, as the extensive sales of produce promoted internal prosperity, a demand for goods sprung up and dutiable articles have taken the place of specie. This operation will probably be still more extended for the coming year, and united to the favorable state of the continental markets, may promote the demand for Lancashire goods for export as to compen-

sate, in some degree, the unfavorable prospect for the English home trade. The recent unfortunate termination to the attempt to restore peace in the Rio Plate river, will however, probably, operate adversely to the English cotton trade.

The cotton year having closed, the crops make up, as compared with former years, and showing the product of each locality, as follows :

COTTON GROWN IN THE UNITED STATES FOR FIFTEEN YEARS.

	N. Orleans. bales.	Mobile. bales.	Florida. bales.	Georgia. bales.	South Carolina. bales.	N. Carolina, Va. & Texas. bales.	Total bales.
1828-29.....	264,249	79,958	4,146	249,166	168,275	104,021	870,415
1829-30.....	354,024	102,680	5,787	253,117	188,871	72,412	976,854
1830-31.....	426,485	113,186	13,073	230,502	185,116	70,435	1,008,847
1831-32.....	322,635	125,921	22,651	276,437	173,872	65,961	967,477
1832-33.....	403,443	129,366	23,641	271,025	181,879	61,087	1,070,438
1833-34.....	454,719	149,978	36,738	258,656	227,359	76,945	1,204,394
1834-35.....	511,146	197,692	52,085	222,670	203,166	67,569	1,254,328
1835-36.....	481,536	226,715	79,762	270,220	231,237	61,257	1,361,628
1836-37.....	601,014	232,243	83,703	262,971	196,377	46,665	1,422,968
1837-38.....	731,256	9,807	106,171	304,210	294,334	55,719	1,801,497
1838-39.....	584,994	251,742	75,177	205,112	210,171	33,336	1,360,532
1839-40.....	956,922	445,725	136,257	292,693	323,194	33,044	2,177,835
1840-41.....	820,140	317,642	93,552	149,000	225,953	28,669	1,634,945
1841-42.....	727,658	318,315	114,416	232,271	260,801	30,750	1,684,211
1842-43.....	1,060,246	481,714	161,088	299,491	351,658	24,678	2,378,875
1843-44.....	832,172	467,990	145,562	255,597	304,870	24,218	2,030,409
1844-45.....	929,126	517,196	188,693	295,440	426,361	37,687	2,394,503
1845-46.....	1,037,144	421,966	141,184	194,911	251,405	53,927	2,100,537
1846-47.....	705,979	323,462	127,852	242,789	350,200	28,369	1,778,651

The growth of Texas comprises that portion shipped by sea only. A considerable portion arrives at New Orleans by way of Red river, and is included in the receipts at that port. The quantity of Texas cotton shipped was, last year, 27,008 bales, and this year only 8,317 bales. The great falling this year has occurred in the heavy bales, and the increase in the light ones. The New Orleans, Texas, and Florida bales average 450 lbs.; those of Mobile, 480 lbs.; while the Atlantic bales have not been more than 390 lbs. each. The distribution of the crop has been as follows :

EXPORTS, CONSUMPTION AND STOCK.

	1839.	1840.	1841.	1842.	1843.
Great Britain.....	bales 798,418	1,246,791	858,762	935,631	1,469,711
France.....	242,243	447,465	348,776	398,129	346,139
North of Europe.....	21,517	103,232	56,279	79,956	117,794
Other ports.....	12,511	78,515	49,480	51,531	76,493
Total.....	1,074,689	1,876,003	1,313,277	1,465,249	2,010,137
U. S. consumption...	276,018	295,193	297,288	267,850	325,129
Stock U. S., Sept. 1..	52,244	58,412	72,479	31,807	94,486
Great Britain.....	1,202,498	1,439,306	1,102,369	830,909	830,909
France.....	282,685	359,357	359,703	241,484	241,484
North of Europe.....	69,053	134,501	86,692	75,649	75,649
Other ports.....	75,254	160,592	118,028	93,128	93,128
Total.....	1,629,490	2,083,756	1,666,793	1,241,229	1,241,229
United States consumption.....	346,744	389,006	422,567	427,967	427,967
Stock United States, Sept. 1.....	159,772	94,126	105,636	214,837	214,837

Great Britain has taken this year less than her usual quantity, and

the competition of the continent has, in spite of adverse circumstances, gone far to sustain the market. The prices have been, semi-monthly, in the New York market as follows :

PRICES OF COTTON IN NEW YORK MARKET.

	1844-5.		1845-6.		1846-7.		Freight.
	Fair Up.	Fair Or.	Fair Up.	Fair Or.	Fair Uplands.	Fair Orleans.	
Sept. 14.....	6½@7½	7½@7½	8½@8½	8½@9	9½@9½	9½@10	3-16@1-4
" 30.....	6½@7½	7½@7½	8½@8½	9@9½	9½@10	10@10½	3-16@3-16
Oct. 15.....	6½@7½	7½@7½	8½@8½	9@9½	10@10½	10½@10½	3-16@3-16
" 31.....	6½@7½	7½@7½	8½@8½	8½@9	10@10½	10½@10½	1-4 @5-16
Nov. 15.....	6½@6½	6½@7½	7½@7½	8½@8½	10@10½	10½@10½	3-8 @1-9
" 30.....	6½@6½	6½@6½	7½@7½	8½@8½	9½@10	10@10½	7-16@5-8
Dec. 14.....	5½@6	6½@6½	8@8½	8½@9	10½@10½	10½@11	3-8 @7-16
" 31.....	5½@5½	6½@6½	7½@8	8½@8½	11@11½	11½@—	3-8 @3-8
Jan. 15.....	5½@6	6½@6½	7½@7½	8½@8½	11½@12	12@12½	3-8 @7-16
" 31.....	6½@6½	6½@7	7½@7½	8½@8½	13½@13½	13½@14	3-8 @3-8
Feb. 15.....	6½@6½	6½@7	7½@7½	8½@8½	12½@12½	12½@13	3-8 @3-8
" 28.....	6½@6½	6½@7	8@8½	8½@9	10½@11	12@12½	3-4 @1d.
Mar. 15.....	6½@6½	6½@6½	8½@8½	9@9½	11@11½	12½@13	5-8 @3-4
" 31.....	6½@6½	7½@7½	8½@8½	9½@9½	12@12½	13@13½	3-8 @1-2
April 15.....	6½@6½	7@7½	8@8½	9@9½	12@12½	13@13½	3-8 @1-2
" 30.....	6½@6½	7@7½	8½@8½	9½@9½	13@13½	13½@14½	3-16@1-4
May 15.....	6½@6½	7@7½	8@8½	8½@9	13@13½	13½@14	3-16@1-4
" 31.....	6½@7	7½@7½	8@8½	8½@9	12½@12½	13½@13½	3-16@1-4
June 14.....	7½@7½	8@8½	8@8½	8½@9	12@12½	13½@13	3-16@1-4
" 30.....	7½@7½	8½@8½	8@8½	8½@9	12½@12½	13@13½	1-4 @5-16
July 15.....	7½@8	8½@8½	8@8½	8½@9	12½@12½	13½@13	5-16@3-8
" 31.....	8½@8½	8½@9	8½@8½	9@9½	12½@12½	13@13½	7-16@9-16
Aug. 15.....	8@8½	8½@8½	8½@9	9½@9½	13@13½	13½@13½	1-4 @3-8
" 30.....	7½@8	8½@8½	8½@9½	9½@10	12½@13	13@13½	1-8 @3-16

Art. VII.—DIRECT TRADE OF SOUTHERN STATES WITH EUROPE.

NO. III.

In our last we reviewed a portion of the ground occupied by the South-western States upon the important subject of European commerce, and examined the proceedings of the Convention held at Augusta, Ga. In subsequent numbers the general subject will be continued. We cannot at this time do a more acceptable service than publish the able report made by the Committee of twenty-one, in 1839, to the Convention held in the city of Charleston. As this report had but a limited circulation and is entirely out of print, though an invaluable and able paper, we give it entire. Chancellor Harper was chosen chairman of the committee, though, if we mistake not, the Hon. Robert Y. Hayne drew up the document.

And first, as of some note and worthy of preservation, we give the names of the delegates in attendance and the States represented.

FROM SOUTH-CAROLINA.

Charleston.—Robt. Y. Hayne, James Hamilton, Hugh S. Legare, C. G. Memminger, Ker Boyce, Abraham Tobias, Samuel Burger, Thaddeus Street, James Robertson, Henry L. Pinkney, John Robinson, Neil McNeill, C. Burckmyer, L. G. Capers, Thomas Bennett, S. P. Ripley, Charles Edmondston, Abraham Blanding, Andrew McDowall, H. W. Conner, John C. Ker, Daniel Ravenel, Alexander Black, David Alexander, Arthur P. Hayne, L. Trapmann, James Adger, J.

N. Cardozo, John A. Stuart, Richard Yeadon, jr., Jas. S. Bowie, Hugh R. Banks, Robert Collins, Benj. F. Hunt, Geo. A. Kelsey, M. C. Mordecai, Robert Martin, A. G. Magrath, C. M. Furman, Rene Godard, M. I. Keith, Henry Gourdin, Henry A. Middleton, J. F. Entz, Thos. O. Elliott, Alfred Huger, Robert W. Fort, Geo. A. Trenholm, Alex. McDonald.

Kershaw.—Wm. J. Grant, Christopher Matheson, Jno. Boykin, James K. Douglas, Alexander Young.

Richland.—Wm. C. Preston, David J. McCord, B. F. Taylor, James L. Clark, David Ewart, Wm. G. McNeill, John S. Preston, M. H. Deleon, Wade Hampton, F. H. Elmore, J. S. Cohen, B. L. McLaughlin, A. Wallace, John Frost, R. H. Goodwyn, J. D. Mordecai, Langdon Cheves, jr., Jno. McLean, James Fenton, John Caldwell, R. W. Gibbes, Theodore Stark, Thomas Davis, James Douglass, Patrick Noble.

St. Johns, Berkeley.—Sam'l Dubose, Isaac Porcher, jr., Stephen G. Deveaux, John H. Dawson, James Ferguson, S. W. Barker, R. W. Roper.

St. Stephen's.—William Dubose.

Colleton.—John S. Brisbane, Rob't M. Allan, Malachi Ford, Thomas Raysor, R. B. Rhett, J. Boyle, D. K. Whitaker, D. S. Henderson, J. W. Burbridge.

Grogetown.—E. T. Heriot, J. Harleston Read, jr., James G. Henning.

Edgefield.—N. L. Griffin, L. T. Wigfall, H. Burt, Thos. Smith, J. R. Wever, Richard Parks, Whitfield Brooks, Henry Shultz, T. H. Nixon, Gilbert Tennent, Edmund Penn, J. P. Carroll, M. L. Bonham, M. M. Gray, H. L. Jeffers, W. W. Starke, Jas. Jones.

Barnwell.—W. J. Duncan, E. Bellinger, jr., J. H. Hammond, J. G. Brown, B. H. Brown, J. G. W. Duncan, A. P. Aldrich, T. S. Ransome, James Patterson, S. Stansell, J. J. Ryan, Thomas Addison, M. D. Maher, S. D. Parker, S. W. Trotti, E. Lartigue, C. F. Tobin, W. S. Reynolds.

Beaufort.—Alex. J. Lawton, John Frampton, Sidney Smith, Alfred Raoul, Robert Chisolm, B. McBride.

Orangeburg.—D. F. Jamison, David Shuler, W. L. Lewis, Samuel B. Dwight, Wm. P. Russell, Jno. M. Felder, Jacob Stroman.

Abbeville.—Joel Smith, A. B. Arnold, James S. Wilson.

Pendleton.—Francis K. Huger.

Greenville.—B. Dunham.

Laurens.—Beaufort T. Watts, R. H. Spear, J. Watts, H. Saxon.

Union.—David Johnson, J. M. Gadberrry, Joseph H. Dogan, R. J. Gage, F. W. Spears, J. Wright.

Chester.—John Dunovant, Jesse Cornwall, John McKee, Jordan Bennett, John T. M. McAfee.

Fairfield.—B. F. Davis, William Harper, J. H. Means, R. Cathcart, William S. Lyles, Thos. McCullough, S. G. Barkley.

Darlington.—E. W. Charles.

Newberry.—James P. Caldwell.

Sumter.—F. Sumter, James Haynsworth, J. N. Frierson.

Lexington.—H. J. Caughman, John A. Addison.

FROM NORTH-CAROLINA.

Asheville.—Mitchell King, William Patton, Dr. S. H. Dickson.

Warren Co.—C. F. Maddux, E. J. Lynah.

Fayetteville.—E. J. Hale, J. W. Sandford, E. W. Wilkings, J. B. Eccles.

FROM GEORGIA.

Athens.—William Dearing, Asbury Hull, Burwell Pope, John J. Huggins.

Augusta.—John Phinizy, John Bones, John Kerr, John G. Winter, Louis A. Dugas, James Rhind, Samuel M. Thompson, James W. Davies, Thomas G. Casey, Wm. M. d'Antignac, James T. Gray, Pleasant Stovall, Isaac Moise, John Milledge, Andrew J. Miller, A. B. Longstreet.

Darien.—Benjamin Green.

Milledgeville.—R. K. Hines, Isaac Newell.

Macon.—E. Hamilton, J. Cowles, J. B. Rowland, Charles Collins, E. Alexander, D. C. Campbell, Thomas Hardiman.

Washington County.—Quintilian Skrine.

Crawfordville.—A. H. Stephens, T. Chafin, John M. Anthony.

Madison.—John Robson, William C. Saffold.

FROM ALABAMA.

Montgomery.—Charles T. Pollard, Elbert A. Holt, Jesse P. Taylor, Abner McGehee.

Pickens.—Amos Davis.

FROM TENNESSEE.

Knoxville.—William S. Kennedy, John H. Crozier, Thomas C. Lyon.

Athens.—Spencer Jarnaghin.

Greenville.—Alexander Williams.

Memphis.—T. A. Field.

FROM FLORIDA.

James Gadsden, Wm. J. Mills, Hardy H. Philips.

FROM MISSISSIPPI.

Hon. Hanson Alsbury.

Near two years have elapsed since the first commercial convention assembled in Augusta, for the purpose of promoting a "A DIRECT EXPORT AND IMPORT TRADE WITH FOREIGN COUNTRIES." It was foreseen by the projectors of this great enterprise, that it would be a work of time, and that its final accomplishment could only be effected by the exertion of extraordinary zeal, energy, and perseverance. They were well aware that essential changes in the habits and pursuits of a people—and especially in the course of their trade—could be brought about only by slow degrees. They knew that the end proposed, no less than the means to be adopted for securing it, would come into conflict with too many deeply-rooted prejudices and conflicting interests, to permit them to escape censure and avoid misrepresentation. In the very beginning, they pointed out these as among the difficulties to be encountered and overcome, before they could expect to reap the full reward of their patriotic exertions. Nevertheless, we have gone steadily forward in the consciousness of rectitude, and under a deep and abiding conviction that the "commercial independence of the South" is too closely connected with the welfare, prosperity, and honor of this quarter of the Union, ever to be abandoned, while there remained the smallest hope of ultimate success. The evil complained of, is, that the Southern and South-western States, while producing near three-fourths of the domestic exports of the Union, import scarcely one-tenth of the merchandise received in exchange for them. The foreign commerce, which derives its existence from the productions of our industry, and which is the unfailing source of so much wealth to others, is carried on by the citizens of other States, causing their cities to flourish, while ours have been falling into decay. The profits of the *agency* by which this trade has been carried on *for us*, has been estimated at ten millions of dollars annually. The annual loss to Georgia and South Carolina cannot be less than three millions, while Mississippi (whose exports even now amount to \$16,000,000), must lose a million and a half annually. No one acquainted with the present course of trade and the usual measure of mercantile profits, would, we presume, estimate the gains of the northern merchants from the almost exclusive possession of the carrying trade for the South, at less than from 10 to 15 per cent.,* which would exceed the amounts above esti-

* In an able report made by Mr. PORTER to the Legislature of Alabama, the following striking views are presented of this branch of the subject:

"Of the two hundred and eighty thousand bales of cotton which find their way to

mated. The natural, indeed the inevitable effect of this state of things upon the plantation States, has been to subject their industry to an indirect tax, which has consumed so large a portion of their annual profits as to deprive them, in a great measure, of the means of accumulating the *capital* equally essential to the success of commercial pursuits, as to the general improvement of our country. It has

market from this State, probably one hundred thousand reach New Orleans by the Tennessee and Mississippi rivers, and the balance passes through Mobile. That portion of the amount which reaches Mobile, and is not shipped to Liverpool and Havre through New York, is shipped directly to the foreign market in vessels owned in the latter city, after being purchased by capital owned there likewise; so that we may estimate the entire amount of our exports of cotton (worth eighteen millions of dollars) has to reach the European market through agents who are not citizens of the State, and upon whom we need not be necessarily dependent. This probably costs us one million eight hundred thousand dollars. But it will be asked, can every producer sell for himself? We say, no; but if we employ agents, let them be our own citizens, who will return the profits they make back into the same community from which they are derived, and the burden will cease to be intolerable. Again—the same channels return us our imports. These consist of dry goods, cutlery, and groceries, which we indirectly purchase to a large amount from Europe and the West Indies, through New York, by the same agents. If our imports equal in value our exports, which is the stated rule, and those who thus purchase for us, charge us only ten per cent. which is a very moderate calculation (as we believe imports to the Southern market may be safely arranged at twenty per cent.), we pay upon our imports one million eight hundred thousand dollars. Thus making upon exports and imports three million six hundred thousand dollars, which we pay for the privilege of taking the Northern markets in our route to those of foreign countries. This is a calculation in respect to our own first markets. Add to the amount the expenses and charges upon goods before they go into the hands of the consumers, and the sum total will be very greatly increased.

If this amount must be paid, why should it not be paid to our own citizens? If we must employ agents, why should we not select those who will return the profits they derived from us, back to us again? Why should not the Legislature of the State put forth its most liberal power to attain the people this most desirable end? Why should not the people themselves, while the resources of this noble and prosperous State are full of youth and energy, seize upon an enterprise which thus promises such beneficial results?—results of no chimerical, vague or uncertain character, but taught us by the lesson of facts, ascertained by the best proof—the proof of experience itself.

If we take the article of cotton alone, and enter into a calculation of the loss occasioned to the planting interests of the South and West by an indirect trade, we will be astonished at the result. The estimated crop of cotton for the year ending 30th September, 1838, is 1,891,497 bales. This cotton is transported by sea either to the Northern ports, or directly to Europe. Of this number, 1,165,155 bales go to England; 321,480 to France; 63,009 to the North of Europe; and 25,895 to other foreign ports—making a total of 1,574,629 sent abroad. Deduct this number of bales from the entire crop, and we find that 226,868 bales are used at home, and returned to us in domestic manufactures. It is but reasonable to estimate the freight paid upon the number of bales shipped abroad at one and a half cents per pound. If this be calculated upon 1,574,629 bales, supposing each bale to contain 340 pounds, which gives 535,373,860 pounds, it is shown that the producing States pay for freight alone, \$8,030,607 90. Other charges, such as commissions, shipping, insurance, may be said to amount to at least five per cent. Now the amount of the crop shipped valued at thirty dollars per bale, is \$47,238,870.

Five per cent. upon that amount is	-	-	-	-	-	-	-	-	-	\$2,361,943 50
To which add the freight, which is	-	-	-	-	-	-	-	-	-	8,030,607 90

And you have a total of - - - - - \$10,392,554 40

This immense amount deducted from a crop of the value of \$47,238,879, is distributed among those who act as the transporting and selling agents of the producer, all of whom live north of the Potomac river. The South thus stands in the attitude of feeding from her own bosom a vast population of merchants, ship owners, capitalists and others, who without the claims of her progeny, drink up the life-blood of her trade.

It cannot be here asserted that a deduction should be allowed for that portion of the Southern crop which is shipped directly from the southern ports to foreign countries. The tonnage register will show that nine-tenths of the shipping employed belong to Northern capitalists.

Now let us bring this calculation home to Alabama. Her estimated crop of cotton

been supposed that with the vast resources of the cotton-growing States, the mere abstraction of a few millions annually, by an unfavorable course of trade, could not very materially diminish their wealth, or impair their prosperity. But let it be recollected, that the sum drawn annually from these States by the *combined operation* of all the causes which have concurred in diverting to the North the profits of southern labor and capital, are by no means inconsiderable in amount. In addition to the ten millions of dollars yearly abstracted by the unfavorable course of our foreign trade, the ACTION OF THE FEDERAL GOVERNMENT in the collection and disbursement of the public revenues, has operated as a burden to an equal or even greater amount. The system of raising, by duties on foreign goods, nearly the whole amount necessary to meet the wants of the government, including the discharge of an immense public debt, was, of itself, calculated to depress the industry of the cotton-growing States, which was almost exclusively employed in raising the products which were exchanged for the very articles thus enormously taxed. But when these duties were extended to an amount greatly exceeding the wants of the government, ranging from 25 to upward of 100, and amounting on an average to 40 per cent., imposed for the avowed purpose of affording protection and encouragement to those, the productions of whose industry (free from all taxation) came into direct competition with the foreign goods received in exchange for our cotton, rice, and tobacco, *when* the vast amounts thus extracted WERE ACCUMULATED AT THE NORTH, and there expended on the army and navy, the fortifications, public buildings, pensions, and the other various objects of national expenditure—the balance being distributed in INTERNAL IMPROVEMENTS—of which we receive but a small share, can it be a matter of wonder or surprise, that even with the richest staples in the world, the South should exhibit the extraordinary spectacle of a country making hardly any progress—while the more fa-

for the year ending 30th September, 1838, is 309,807 bales. This calculated at four hundred pounds to the bale, gives 123,932,800 pounds. One and a half cents freight is	\$1,853,642
Commissions, shipping, insurance at five per cent. on amount of crop, is, viz., \$12,392,280, at \$40 per bale, is equal to	619,614
Add one and a half cents per pound for baggage, factor's commissions, transportation to Mobile, which is	1,858,842
Total,	\$1,337,298
Deduct this from \$12,392,289, the value of our crop at home, and we have left us	\$3,054,982.

When in addition, it is collected that this amount is again indirectly expended abroad in purchasing our articles of consumption, we will perceive that the most ruinous consequences follow. The destination and disposition of our products for the last twenty years, have not been made subjects of consideration by our citizens, nor their importance estimated. We content ourselves with buying and selling again, without inquiring farther than to know that our crops increase, and that we dispose of them readily. We do not perceive the great drain which is made from us by the capital of others. Foreign capital purchases our produce, but it is taken up instantly by foreign imports. Foreign merchants act as our agents in the two transactions, but spend not a dollar of the money we pay among us again. The immense value of our labor is thus taken abroad, and it is well known that we live humbly, make no expensive improvements, spend little in the luxuries of life, and have few means at the close of the year. Where, then, goes the value of our labor, but to those who, taking advantage of our folly, ship for us, buy for us, sell to us, and after turning our own capital to their profitable account, return laden with our money, to enjoy their easily earned opulence at home.

vored, though comparatively barren, regions of the North were seen constantly advancing in wealth and prosperity } This UNEQUAL ACTION OF THE FEDERAL GOVERNMENT—as it was, in the first instance, the most prominent cause of the subversion of southern commerce—has constantly operated in *preventing its recovery*, by stimulating the commercial industry of the North, and building up northern cities at the expense of those of the South and South-west.* To show the magnitude of this evil, it is only necessary to advert to the fact, that the gross amount received from customs has been estimated at the enormous sum of nine hundred millions of dollars, nearly three-fourths of which were levied on goods received in exchange for the productions of the South and South-west, and nine-tenths of it expended north of the Potomac. Now, if one of the effects of this most unjust and unequal system has been to stimulate the industry of the North, and thus to throw the importing business almost entirely into the hands of northern merchants, then it is manifest that we have been deprived of the profits to be derived from the importation and sale of an amount of foreign goods, which, estimated by the value of our productions, could not have fallen far short of a thousand millions of dollars—the entire value of importation being estimated at near three times that amount—a sum so vast that the usual profits on the importations would have been abundantly sufficient to have changed the entire face of our country, and given us a capital fully adequate to all the purposes of the most prosperous foreign commerce, and the most extensive system of internal improvements.

But there is another view of this subject, entitled, we think, to more weight than it has yet received. The prosperity of States depends in a far greater degree upon their ACCUMULATED CAPITAL than is generally supposed. A people whose industry is exhausted in the bare supply of their wants, can make but small advances in science or the arts. All great public improvements must be the result of *capital*, accumulated by years of successful industry. The man who lives by his labor, has neither leisure nor inclination, and if he possess both, has not the means of improving his own condition, much less of developing the resources of his country. And whatever may be the productions of any country, if the consumption be equal to that production, it is clear that capital cannot be accumulated to any great extent. National wealth chiefly depends on the *excess* of annual production over the annual consumption. This constitutes, at all times, and under all circumstances, A COMPARATIVELY SMALL PORTION OF THE WHOLE ANNUAL PRODUCTION, much the greater part of which must necessarily be consumed in the support of the producers. Now, according to this law of society, which is founded in the very nature and constitution of man, it is manifest that the yearly abstraction, whether it be by the action of the government or the operation of an unfavorable course of trade, of even a comparatively small portion of the annual gains of any people, may so far affect their prosperity as to leave them in the condition of a community making no advances whatever

* The excitement of the Southern States some years ago, and particularly in South Carolina is a subject of history, whether just or unjust is left to the future. Our neutrality is in no wise committed by the publication of this section of the Report. Let it go as a whole.—EDITOR.

in wealth and prosperity. If the millions, therefore, which have been abstracted by the government from the southern and south-western States, and expended elsewhere, had been left here to accumulate, and to be applied to all the uses of society; if our citizens even now derived all the profits which our great staples still furnish to the merchants and manufacturers of the North, we would not hear continued complaints of that want of capital, which we are told opposes so great an obstacle to the success of our schemes. The addition of even one million and a half a year (to rate it no higher) to the commercial capital of Mississippi, Georgia, and South Carolina, for the last ten or fifteen years, would at this time have placed these States in a condition of the highest prosperity. One of the most unfortunate consequences of the subversion of southern commerce has been the depriving us of that **DIVERSITY IN THE PURSUITS OF THE PEOPLE** on which, we are persuaded, the prosperity of every community, in a great measure, depends. The citizens of the southern and south-western States, driven from the animating pursuits of commerce, have, it is undeniable, devoted themselves *too exclusively* to agriculture. With us, the usual routine of business has been, to produce as much cotton, rice, and tobacco, as our land and labor would afford. Whatever profits could be derived from the transportation, sale, and manufacture of these articles, or from the business of conducting the exchanges, we were content to leave in the hands of others. If, at the end of the year, the planter found that he had supported his family, and was not brought into debt, he was well content. The fortunate few whose incomes exceeded their expenditures, were naturally led to the extension of their plantations rather than to the investment of their surplus in commerce or manufactures. Except in the immediate neighborhood of the cities (whose bank and other stocks have commanded the attention of a few of our wealthy planters), the regular course has been to invest the entire profits of agriculture in lands and negroes. The poorer class of planters have thus been induced to sell out their possessions to their more wealthy neighbors, and have gone with the proceeds to other States, while the acquisition of more land, and the production of more cotton have been regarded as the only objects worthy of the attention of those who remained at home. The most disastrous consequences have resulted from this unfortunate habit among our agriculturists. In the first place, the increase of the quantity of cotton thus produced, has not been attended by a corresponding increase in the profits of the planter. According to a law in political economy, well understood, and which admits of few exceptions, a mere increase in the quantity of any article of general consumption, seldom increases its money value in a corresponding degree, while the lessening of the production not unfrequently enhances that value. Hence the practice of the southern planters of devoting their *whole attention* to the increase of their cotton crops, is not attended by a corresponding increase in their value. It is a notorious fact, that the shortest crops of this article are not unfrequently the most profitable, and it can hardly be doubted that if the whole surplus of our agriculture for several years past had been applied to other pursuits, instead of being invested in lands and applied to the production of more cotton, the cotton crop

would have been worth, at this time, nearly as much as it is at present, while this surplus invested in commercial or other pursuits, or applied to public improvements, would have added to the wealth and improved the character of our people, and, by diversifying their pursuits, have stimulated their industry and strengthened our peculiar institutions.*

From this brief review of the subject, it will be seen that the present depressed state of southern commerce has been brought about by causes which, however powerful, have, in a great measure, CEASED TO EXIST, and that the opportunity is now presented, by improving our present advantages, of removing them altogether, and regaining all that we have lost. The national debt of \$120,000,000 has been fully paid. The tariff, already greatly reduced, is gradually receding to the "revenue standard." In a little more than two years, by a proper vigilance on the part of our representatives in Congress, and a firm determination on our own, to *insist*, in the terms of the compromise act, on the reduction of the tariff to the "revenue standard," based on "an economical administration of the Federal Government," with the continued preservation of the blessings of peace, so indispensable to our welfare, we shall soon be relieved from a system which has sapped the very foundations of our prosperity, and reduced us almost to a state of "colonial vassalage." For the rest, we must depend upon ourselves. That the difficulties under which we have labored have not arisen from anything inherent in our situation or character is abundantly proved by our past history. The statistics of the United States enable us to present to the world the following statements, exhibiting at one view the true history of the rise, progress, and decay of southern commerce, and pointing out with unerring certainty the causes of that decay. We extract them from one of the documents already published by the convention, which cannot be too frequently read, or too carefully studied.

The time was, when the people of the South were the largest importers in the country.

In 1769, the value of the imports of the several colonies was as follows:

Of Virginia.....	£851,140 sterling
New-England States.....	561,000 "
New York.....	189,000 "
Pennsylvania.....	400,000 "
South Carolina.....	555,000 "

The exports were in about the same proportion; Virginia exporting nearly four times as much as New York; and South Carolina nearly twice as much as New York and Pennsylvania together; and five times as much as all the New England States united.

* From what has been here said, we would not be understood as indulging in any fears that cotton is an article, the production of which is at all likely to be *overdone*. It is the cheapest raw material out of which cloth can be made, and is destined, we have no doubt, to supersede to a great extent all manufactures of wool, flax, hemp, and silk; and when shirting and sheeting, sails, carpeting, hats, blankets, and even broad-cloths, shall be made, as they shortly will be, entirely of cotton, the world will consume, not only all the cotton now produced, but four times the quantity. Still the quantity produced may be diminished without lessening *our profits*, and the capital thus diverted from agriculture to commerce and manufactures will be a great gain to the country. The Southern States must always be essentially *agricultural*. It is well that it should be so: slave labor is best adapted to agricultural pursuits. Still we should be great gainers by diversifying in some degree the pursuits of our people.

The same relative proportion of imports is preserved until the adoption of the Federal Constitution, when we find them to be in the year 1791, as follows:

Of New York.....	\$3,222,000
Virginia.....	2,486,000
South Carolina.....	1,520,000

There are no data to show the imports into the several States from the year 1791 to 1820, but the general fact may be assumed, that the import trade of New York and other Northern States, has been constantly progressing, while that of Virginia and South Carolina has as regularly diminished. From 1821, to the present time, we have sufficient data, and they exhibit the following as the state of the import trade:

Years.	New York.	Virginia.	South Carolina.
1821.....	\$23,000,000.....	\$1,078,000.....	\$3,000,000
1822.....	35,000,000.....	864,000.....	2,000,000
1823.....	29,000,000.....	681,000.....	2,000,000
1824.....	36,000,000.....	639,000.....	2,400,000
1825.....	49,000,000.....	553,000.....	2,150,000
1827.....	39,000,000.....	431,000.....	1,800,000
1829.....	43,000,000.....	375,000.....	1,240,000
1832.....	57,000,000.....	550,000.....	1,213,000

Thus the import trade of New York has gradually increased from £189,000 sterling, about \$340,000, in the year 1769, and from about three millions of dollars in 1791, to the enormous sum, in 1832, of fifty-seven millions of dollars! while Virginia has fallen off in her import trade, from two and a half millions of dollars, in 1791, to \$375,000 in 1829, and \$550,000 in 1832, not a great deal more than the freight of half a dozen ships!

From these calculations a few curious facts appear. The imports of New York were, in 1832, seventy times as great as they were in 1769, and nearly twenty times more than they were in 1791. Virginia on the other hand, imported in 1829 about one-eleventh of what she did in 1769, and about one-seventh of what she did in 1791. In a period too of eight years, the aggregate imports of New York amounted to three hundred and eleven millions of dollars; those of South Carolina to about sixteen millions, and those of Virginia to about five millions! New York imported, therefore, in 1832, eleven times as much as Virginia did in eight years preceding, and nearly four times as much as Virginia did in eight years preceding, and nearly four times as much in the single year of 1832, as South Carolina imported in a period of eight years. Again, New York imported in one year, (1832) nearly fifty times as much as South Carolina in the same year, and about 110 times as much as Virginia.

Having shown the decline of Southern trade, we proceed to inquire into the causes of it. In the course of our research the reader will discover the prime cause of our present embarrassments.

The Committee of Ways and Means, in their report of the 5th March last, say: "Our collectors have had under their control a gross revenue of \$946,000,000, and our land receivers \$107,000,000, making \$1,053,000,000. They not only had control of this vast amount, but they were permitted to pay without warrant from the treasury, and before the money passed out of their hands, all the expenses of our custom-houses and land offices and debentures which alone amounted to four or five millions annually, and sometimes more."

Though we find some difficulty in reconciling this statement with the actual receipts and disbursements of the Government as reported annually to Congress, and with the expenses of collection as discoverable from the sources of information which lie within our reach, without supposing greater losses in the transit of the public funds to the treasury than are stated to have occurred, it is probable that our difficulty arises from our limited means of research, and that the Committee are substantially, if not literally correct.

The nine hundred and forty-six millions of revenue raised from the customs were levied from foreign merchandise, received in exchange for domestic productions; for though the term *customs*, in financial language, embraces duties on tonnage, clearances, light-money, &c., &c., these are comparatively so insignificant that they will not materially affect the estimate. Those who think differently, may allow for them the odd forty-six millions. Of the domestic productions given in exchange for foreign merchandise, nearly three-fourths were of southern growth—we will say two-thirds, which we know, in the whole estimate, to

ne under the mark. Without disturbing the vexed question, "who pays the duties," we may state then, what all will admit, that the Government has been indebted to southern industry for six hundred and thirty millions of money. If the expenses of collecting one thousand and fifty-three millions of revenue were "from four to five millions annually, and sometimes more," it may safely be assumed, that the expenses of collecting the six hundred and thirty millions amounted to one million annually. Had the southern people then shipped their own produce to foreign markets, and brought the return cargoes to their own ports, they would have had eight and forty millions distributed among them since 1789, simply in the pay of their revenue officers. This would have gone into the pockets of individuals, to be sure; and so goes all that constitutes the wealth of a nation. *Here* would it have been received, and *here* expended. Insignificant as it may seem while we are contemplating thousands of millions, when we reflect upon the influence which the comparatively trivial sum received by the States from the surplus revenue has had upon the southern States, we cannot doubt that its effects would have been most benignly felt. This sum divided among the cities of Norfolk, Wilmington, Charleston, Savannah, Mobile and New Orleans, would have quieted many a disturbed bosom in the trying reign of the protective system. Savannah's portion of it would have defrayed the whole expenses of the government of Georgia for more than thirty years; nor, it is believed, would the portions of the other cities have done less for their States. Whatever the sum may have been worth, we must be considered as having thrown it away ourselves. Let us at least remember, that if the tariff should ever be revived (and hints to that effect have recently fallen from high authority on the floor of Congress), a direct trade will in some measure mitigate its rigor; and thus far tend to the preservation of the Union.

If we suppose the value of the goods upon which the six hundred and thirty millions of duties were levied, to have been but four times the value of the duties, it amounted to \$2,500,000,000. How were these goods brought to this country and distributed? The Northern merchant has come hither and bought from the Southern planter produce of equal value, abating from the price, all the expenses, direct and incidental, of transportation—he has insured them in Northern offices, and shipped them abroad in his own vessels—exchanged them at a small profit for foreign merchandise—brought it home—paid one-fourth its value to the Government—added that amount and all the expenses of importation, and fifteen to twenty per cent. for his profits to the price, and exposed it for sale. The Southern merchant has now gone to him; lingered the summer through with him at a heavy expense—bought a portion of these goods—re-shipped them in Northern vessels to Southern ports—added twenty-five per cent. more to the price, to cover his expenses and profits—and sold them to the Southern planter. All the disbursements made in this process, save such as are made abroad, are made among Northern men; all the profits, save the Southern merchant's, are made by Northern men; and the Southern planter, who supplies nearly all the foreign goods of the country, gets his portion of them burdened with every expense that the Government, merchant, insurer, seaman, wharfinger, drayman, boatman, and wagoner can pile upon them. His burdens, of course, are needlessly increased by the amount of the expenses incurred in landing the goods at Northern ports, and bringing them thence to Southern markets. Every item in the endless catalogue of charges, except the Government dues, may be considered a voluntary tribute from the citizens of the South to their brethren of the North: for they would all have gone to our own people, had we done our own exporting and importing. Will the reader compute the amount of them on twenty-five hundred millions worth of goods, and make a fair allowance for the portion of them consumed at the South?

In 1835, the long-endured national debt was extinguished, after having absorbed from the treasury about four hundred and twenty-two millions of dollars. The larger portion of this sum was paid to the citizens of the United States; of whom, those residing north of the Potomac were to those residing South of it, in the ratio of 165 to 11; and those in Massachusetts, New-York and Pennsylvania, to those in all the other States, as 150 to 176. Whence, but from their commerce, did the Northern States acquire the means of loaning so largely to the Government? Whence, but from the same source, did three States acquire the power to loan thirteen times as much as all the Southern States put together? And with the power to lend, was it no advantage to them, to have been enabled to lend, upon the best security in the world?

So much for our own voluntary self-improvement. A word or two upon

those contributions which we have made to the fortunes of our Northern brethren, and which may be denominated, compulsory.

The actual disbursements of the General Government have been about one thousand millions of dollars, exclusive of the surplus revenue. The greater part of this immense sum was disbursed among the several States. A rateable distribution of this fund between the Northern and North-western, and Southern and South-western States as they now stand, would have been *nearly* as follows:

According to whole population, as	7 to 5
“ “ white “ as	7 to 3
“ “ representation, as	5 to 3
“ “ area, as	4 to 5

How have they actually been? Up to 1830, there had been expended in the several States and Territories two hundred and eighteen millions of public money, in fortifications, light-houses, public debt, pensions, and internal improvements; of which sum, one hundred and ninety-five millions were disbursed in the Northern and North-western States; and twenty-three millions in the Southern and South-western. The national debt constitutes by far the largest item in this account, and it was but equitable that this should be paid to the lenders in the proportions of their loans. But in the matter of internal improvements, the Southern division should have received a ninth more than the Northern. The disbursements under this head were—north of the Potomac, in round numbers, four millions seven hundred thousand; south of the Potomac, two hundred and sixty-seven thousand; or nearly 18 to 1.* Pensions 17 to 2; light-houses (consider our coast) 2 to 1; fortifications, equal but never equal afterward, and never to be equal again. The expenditures on the Cumberland road alone, were about nine times the amount expended for internal improvements in all the Southern and South-western States together; and without that, the proportion North and South was as 8 to 1.

But this gives us a very inadequate idea of the extent of the disbursements in the several States. It touches not the first cost, and the annual expenses of the national establishments, most of which are at the North; nor the pay of the officers, principal and subordinate, in the several departments of the government, most of whom are citizens of the North; nor the ten thousand other items of expense, which go to make up the grand total of \$1,000,000,000. Whoever will take the trouble to follow these expenditures through all their details for a year or two, will come to the conclusion, that of the whole sums disbursed among the States, little short of eight-tenths have gone north of the Potomac, or to citizens domiciled north of the Potomac. About seven hundred thousand dollars of the one thousand millions disbursed, were raised from the customs—that is to say, from duties on foreign importations, two-thirds of which were received in exchange for Southern productions. The Southern States, then, have virtually put into the treasury four hundred and sixty-six millions of the seven hundred, and drawn out one hundred and forty. The Northern States have put in two hundred and thirty-three millions, and drawn out five hundred and sixty—fractions rejected. The effect of these disbursements is like a shower of gold upon a people. They are far better. They clear rivers, improve harbors, and open roads and canals which give permanent facilities to commerce. They plant national establishments, gather villages around them, and found other public works, through which there is a constant stream of treasure flowing from the Government to the people in their vicinity.

To this we will only add the pregnant example of the city of Charleston. For several years prior to, and including the year 1807, the imports in the city of Charleston, estimating their amount by the *duties* received at the Custom-house—the average rate of duties being then about 12½ per cent.—amounted, on an average, to about *nine millions* of dollars annually. From that period, under the

* While the above was in the press, the appropriations of the last Congress for Internal Improvements appeared. They are as follows:

North and North-western States, - - - - -	1,189,315
South and South-western States, - - - - -	284,000
New York alone, - - - - -	358,443

operation of the "restrictive system," the importations (with the exception of three years, from 1815 to 1818, immediately after the peace) *gradually declined*, until 1830. In that year the imports had fallen to *one million*. But from that time, and especially since the "American System" has received a fatal blow, and the government has commenced retracing its steps back to the "Free Trade System," our imports have been *steadily increasing*, so that they now amount to about three millions of dollars, and if we shall go on improving, will soon reach their former amount.

No one can shut his eyes to the inference to be drawn from these facts. It is as clear as the sun at noon-day, that if the Southern States, prior to the creation of the Federal Government and the adoption of the restrictive system, were actually able to carry on a profitable direct trade with all the world, of which they have been deprived by the causes to which we have already adverted, that these causes being removed, there can be no insuperable obstacle, to the resumption of that trade. Difficulties we shall certainly have to contend with, growing out of our present want of capital, and the established habits and pursuits of our people. But when it is considered that we are proceeding upon such sure grounds—that the end at which we aim, is of such transcendent importance to us and to our children—how can we allow ourselves to despair of success? It surely can require no argument to establish the position, heretofore asserted, and which no one has yet attempted to controvert, that it is the natural course of trade to exchange *directly* the productions of different countries—and that all indirect and circuitous modes of intercourse, must in general be less advantageous to the producers than the direct trade. If then the trade of the South had not, by adventitious causes, been forced out of its natural channels, our cotton, rice and tobacco, would naturally have found their way across the Atlantic from our own sea-ports, in ships *owned by our own resident Merchants*; and it is equally certain, that the goods received in exchange for those productions would have been returned to us through the same channels. Well then may we inquire, by what extraordinary combination of circumstances, by what "mighty magic," it could have happened, that when the imports of the United States reached the enormous amount of "one hundred and ninety millions of dollars, those of all the Atlantic States, and the States on the Gulf of Mexico, should have amounted only to twenty millions," while at the same time, out of \$107,000,000 of domestic exports, the latter actually exported \$78,000,000—South Carolina and Georgia furnishing exports to the amount of \$24,000,000, and actually importing only \$3,500,000.

It is vain and idle to allege, that this extraordinary state of things has arisen entirely from the want of capital, or the want of ships—from the unhealthiness of the climate, or the want of enterprise on the part of our people. All of these causes combined are wholly insufficient to account for the extraordinary REVOLUTION which has been effected in the course of trade during the last thirty years. The truth is, that the commercial capital that we formerly possessed, and which was then found to be fully adequate to all the purposes of a direct trade, has been abstracted from us, and diverted into other

channels by the causes to which we have already adverted, and Southern ships and Southern importers and Southern commerce, have all shared the same fate.

The objection, that the health of our Southern sea-port towns opposes any serious obstacle to a direct trade, is altogether imaginary. With the single exception of the yellow or stranger's fever, which seldom makes its appearance at the South oftener than once in four or five years, and from which the cities of the North are not entirely exempt, we are actually subject to fewer fatal epidemics, than our Northern brethren. The bills of mortality of the different cities of the Union, will show, that the general health of our cities is at least as good as that of the cities of the North. Consumption alone destroys a greater number of lives in the cities of the North, in proportion to their population, than are lost in Charleston and Savannah from yellow fever and consumption combined, deducting from the latter the number of strangers who come here in the last stages of the disease for the restoration of their health. We will here state for the information of those who have been deceived by exaggerated reports on this subject, that until the past summer, Charleston had not been visited by the yellow or stranger's fever, for a period of fourteen years—that it was then confined, as it always has been, almost exclusively to strangers—the native population continuing to enjoy their usual health—that its continuance was limited to a few weeks, and those not embraced in the usual business season—and that the appearance of the disease has been attributed to extraordinary causes not likely soon to recur. Under these circumstances, the force of the objection founded on the supposed sickness of the sea-ports of the South and South-west, may be duly estimated. If these cities, however, were really as unhealthy as they have been commonly supposed to be, and like the cities of the North, were liable to have their harbors closed up by ice, during a portion of the business season, still there would be nothing in all this, to prevent our exchanging *directly* the productions of the South for those of other countries. While our cotton, rice and tobacco, do actually find a market abroad, and are paid for in foreign goods, what possible difference could it make on the score of health, whether our returns were received directly from Europe, or coastwise from New York? The truth however is, that from the first introduction of commerce among nations up to the present time, it has seldom happened, that any place was found to be too unhealthy for the establishment of an import and export trade, exactly commensurate with its productions and its wants.*

We do not complain that our cotton wants a market, or that ships and merchants are not found to carry it abroad and bring back the returns—but what we complain of is, that the profit of these exchanges are enjoyed almost exclusively by those who *do not live among us*, to the great injury of our own people and our own country.

There are three causes, however, which have been assigned for the depression of Southern trade, which, it must be admitted, have exerted, and still continue to exert, a powerful influence over our

* The reader will find valuable tables of the health of Southern cities in the numbers of our Review for 1846 and 1847, particularly in the May number of the latter year, in an article by Dr. Nott, of Alabama.

destinies, and which must be removed, at least to some extent, before we can hope for complete success in our present enterprise.

The first is the want of a commercial *capital* adequate to the great demands of a direct export or import trade.

The second, the want of a sufficient *demand*, in our own ports, for the goods which, in the event of the establishment of such a trade, would be received at these ports.

Third, the want of lines of *packets and steamships* running at stated periods between our own ports and those of Europe.

These are the real difficulties to be overcome, and which must be surmounted, before we may calculate confidently on the entire success of our efforts.

Let us consider each of these in their order.

1st. *Capital.* To provide the *capital* necessary to carry on the direct trade to the extent desired, these plans suggest themselves. A portion of the capital now engaged in agriculture, should be invested in commercial pursuits. We have already shown that this may be done not only without injury, but with positive benefit to the agriculture of the South and South-west. It is not desired that our planters should leave the cultivation of their fields to engage in the business of the counting-house. All that we would propose is, that they should set apart a portion of their annual surplus, and invest it in commerce. To enable them to do this without risk to themselves, the Legislatures of several States have, at the instance of the Convention, authorized the formation of limited copartnerships, by which means the opportunity is afforded to every one, of investing such portion of his capital as he may think proper in commercial pursuits, without incurring a risk of losing in any event more than the amount so invested. It has been well observed, that if every planter in our country would invest only the tenth part of a single crop in this way, the deficiency in our commercial capital would be at once supplied. We confidently believe that the profits to be derived from such an investment, would be greater than if the same amount were applied to the usual purpose of making more cotton—indeed, we are persuaded, that the profits of agriculture would not thereby be sensibly diminished, while the profits of commerce would be greatly enlarged. We are well aware, that it is not in the course of human affairs that such a concert of action could be brought about among our planters. But we do hope and believe, that the example already set by so many of our public-spirited and patriotic citizens in this respect, will be followed by others—that limited partnerships will be extensively formed, and that by diverting a portion of their capital to commercial pursuits, our planters will contribute largely to the creation of a capital adequate to all the wants of a direct trade, and thus lay a sure foundation for our success.*

* One of the incidental advantages that would grow out of this diversion by our planters of a portion of their capital from agriculture, would be the establishment of some of their sons as merchants instead of devoting them as at present, almost exclusively, to the learned professions—in which so few succeed—or setting them with a few negroes to plant worn-out lands, the usual consequence of which is emigration or ruin. It is impossible to estimate too highly the advantage of preparing by SUITABLE EDUCATION a portion of the youth of our country of the most respectable families, for MERCANTILE PURSUITS. Such a measure, if generally adopted, would, by elevating the mercantile character, and connecting our merchants closely with all the great interests of the State, give increased dignity and importance to commercial pursuits. Though we may not be able to bring back the golden age of commerce, when "Merchants were

Credit also may, to a great extent, be made to supply the place of capital for the purposes of the proposed trade. There is no one who is at all acquainted with the usual course of trade, who does not know, that the amount of money used in commercial operations, whether consisting of gold or silver, or bank bills, is very inconsiderable in proportion to the total value of the exports and imports of a country. These usually balance each other. And as our cotton exported is paid for by the goods imported, the great mass of the business is carried on through the medium of bills of exchange. The course of the business as now carried on through New York, affords an apt illustration of this position. The New York merchant, when he orders his Charleston correspondent to purchase for him a cargo of cotton, directs him to draw on him for the amount, and these drafts he meets by bills on Liverpool drawn upon his agent there, who pays them out of the proceeds of the cotton, when sold. The goods shipped for the Southern market, *via* New York, pass through the same process, and thus it often happens that the whole operation is effected without the actual use of any money, except perhaps the amount for which the bills are in the first instance sold in this country, which goes into the hands of the factor, thence passes into those of the planter—is paid to the merchant for goods, and by him returned to the bank from which it was originally borrowed. Credit therefore, it will be seen, comes largely in aid of capital in all these operations. It is credit which has furnished the merchants of New York with by far the greater portion of their available means, by which they have been able to monopolize so large a portion of the Southern trade. It is not intended to intimate, that the introduction of an increased amount of capital is not indispensable to any great extension of our direct trade—all that we mean to say is, that the amount required will not be so great as is commonly supposed—certainly not so large as to oppose any insuperable obstacle to its acquisition. Our banks have already done much, and will doubtless do much more, to further an object in which these institutions, in common with the whole community, have the deepest interest. Under a recommendation made by a former convention, some of our banks have established credits in Europe, the use of which has, to a considerable extent, been given to the direct importer on the most liberal terms. It is very desirable that all of these institutions should follow this example. But the furnishing credits in Europe is not sufficient; the banks must likewise enable the importer to realize the price of his goods sold on credit to the country merchant, in time to meet his engagements to those institutions. This can only be effected by freely discounting the paper received for these goods, “whether the same shall have more or less than six months to run.” The co-operation of the country banks in collecting and remitting the proceeds of such paper to the banks on the sea-coast, will also be extremely desirable. We are aware that there are limits to business of this character, which the banks cannot prudently transcend. But we are satisfied, that if all of the banks in our Southern and South-western importing cities would

Princes,” we may reasonably hope to see them occupying a station and performing a part equal in dignity and importance to that of the most elevated ranks in society.

agree to lend themselves to this object, so far as they could with a due regard to their own safety, the aid thus received would go very far indeed to advance the direct trade. But the great source to which we look with entire confidence for the supply of all deficiencies in this respect, is the introduction of foreign capital. While England, our great customer, is abounding in capital seeking investments at half the rates of interest allowed in this country, what but a want of *confidence* (resulting from a want of *information*, and of established commercial connections here) could possibly prevent the introduction of any amount of British capital necessary to carrying on the direct trade between Europe and America. We know that before this trade was driven from our ports by the causes already stated, foreign capital was to a very large amount actually employed in that trade—that British houses were established here, and that a very successful business was thus, for a long time, carried on. Why should not this business be now revived? Let the proper measures, then, be taken to inform foreign capitalists of the opening now presented at the South for the profitable employment of their capital among us. Let them be induced to establish agencies and to form copartnerships among us, for carrying on the direct trade. Let them be brought to unite with us in the establishment of regular lines of packet ships and steamers, to arrive at stated periods at our principal ports—and our work will be done. And can they not be persuaded to do this? To effect it, nothing more can be necessary than to give them the requisite information. A commission composed of a few of our most intelligent and experienced merchants, charged to make known the wants and resources and desires of the plantation States on this subject, would, we are satisfied, find no insuperable difficulty in effecting the object, either in England, France or Holland. Let them be authorized to say in our behalf, that the whole Southern and South-western country has been raised up from its lethargy, and is now not merely deeply sensible of the vast importance of this trade, but unalterably determined to establish and extend it. Let them go prepared to exhibit our resources, and invite them, in the name and behalf of our people, to unite with us in doing whatever may be necessary to establish a direct import and export trade on a permanent basis. Let the avenues already opened, and daily extending in all directions, for the transportation of goods into the interior for the supply of the wants of that vast and fertile region, be pointed out to them, and the transcendent importance of these connections be fully explained and illustrated—and above all, let them be assured, that in engaging in this business, they will find among our people a general disposition to countenance and support them by all the means in our power—and we cannot bring ourselves to believe that the merchants and capitalists of Europe, can be so blind to their own interests, as to hesitate to engage at once in the work, with that spirit which characterizes all their enterprises.

Such are the various resources to which we may look with a becoming confidence for the creation of the capital and credit necessary to the perfect success of our great scheme. It will be seen that they are abundantly sufficient. It is by no means essential to our success, however, that they should all be brought at once into full operation.

The good work once begun, must and will go on. We have dwelt thus largely on this point because it presents to the minds of practical men the greatest difficulty in our case.

2d. INTERNAL IMPROVEMENTS.—Equal in importance to the creation of a sufficient capital for carrying on the direct trade, is the furnishing a market for all the goods that can be imported—indeed, it may be assumed as indispensable to our success, that railroads, canals, and turnpikes, must furnish the great channels of communication through which the goods brought into our ports must find their way to the consumers in the interior. Fortunately for our enterprise, the Southern and South-western States are now engaged in various schemes of improvement, all having in view the extension of the connection between their commercial cities and the inhabitants of the interior. From Virginia to Florida inclusive, and from the Atlantic to the Mississippi and the Ohio, railroads are everywhere in progress, which, when completed, will afford the ready means of supplying our whole interior country with foreign goods in the shortest time, and on the cheapest terms. By these several lines of communication, the country merchant will find a ready access to our ports, where he will be able to lay in his supplies on at least as good terms as he could in New York, in addition to the saving of time and money, in avoiding the tedious and circuitous routes through which he now receives his supplies from that city. In the mean time, and until these railroad connections can be established, prompt measures should be adopted, and especially by railroad companies, to establish lines of communication by wagons, from the *termini* of these roads to the points where a demand may exist for the goods so transported. In the "Address to the Citizens of the United States," issued by the Convention which assembled in Augusta in October last, statements were submitted which showed conclusively that the cost of importation from New York to the interior towns of the Southern and South-western States, greatly exceed what would be incurred on the importation of similar goods through our own ports when conveyed by railroads into the interior, even if charged with the highest rates of transportation. From that statement it appeared that while the expenses now incurred on the importation of \$10,000 worth of goods from New York into Montgomery, Alabama, amounted to \$1,383, the same amount of goods might be received by railroads through Charleston or Savannah, at a cost of \$451, making a saving, by means of the direct trade and railroad transportation, of \$931 34, upon an investment of \$10,000; and if the purchase were made in Mobile, and the goods transported by the river, the difference would be still greater. Results equally striking are exhibited on a similar importation to Knoxville, Tennessee. It has indeed been ascertained that on 362,000 lbs. weight of goods imported into Knoxville by a house in 1836, the first cost of which was \$70,000, and brought by land and water from Baltimore, New York, Pennsylvania, and New Orleans, the charges amounted to \$13,750—near 20 per cent. on the first cost, the time required being on an average sixty days; while the time required by a railroad would be three days, and the charges would not exceed \$5,068—less than one-half of the present cost.*

* See address in behalf of the Knoxville Convention, p. 14. Now that Charleston is
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We refer to these cases merely as affording an illustration of the facilities that will be afforded by railroads for the disposal of all the foreign goods, that, under a system of direct trade, can be brought to our ports in exchange for our productions. The two branches of this system are so interwoven with each other, that they cannot be separated without the destruction of both. We have constantly before our eyes, however, a striking example of the effect produced by these communications with the interior upon the course of trade, which it is proper we should refer to, because the members of this body will now be enabled to inform themselves fully upon the subject. The Charleston and Hamburg railroad has already, in a great degree, effected a revolution in the trade of this city.* Seconding the efforts made by a number of public-spirited merchants, who have engaged largely in the wholesale importing business, the Directors of this road have been enabled to furnish facilities to the country merchants for visiting this city, and inducements for laying in their supplies here, which have already enlarged the business to an extent far exceeding the expectations of the most sanguine of our friends. Indeed, under the impulse which the public mind has here received by the proceedings of our Convention, the construction and projection of railroads, and the revival of trade, calamities which at former periods of our history might have left Charleston for many long years a mouldering heap of dust and ashes, have served only to invigorate her efforts, and strengthen her resolution, and thus to lay the

connected with the Tennessee river and the valley of the Mississippi, these reflections will more naturally occur. Charleston is rapidly building railroads to her mountains.

* HISTORY OF THE CHARLESTON AND HAMBURG RAILROAD.—Alexander Black, Esq., of Charleston, politely furnished us, when in that city, with one of the first annual Reports of the Board of Directors of this road in 1833. From this we learn that the books of the Company were opened for subscription 17th March, 1828. Half the stock was taken. The Company was organized May, 1828. There was but one other road in the Union, the Baltimore and Ohio, which at all approached this in contemplated magnitude. The Board constructed an experimental road of 5 miles in length, which we remember to have seen worked by wind and sails as a school-boy holiday. In Aug. 1830, the stock was increased to \$581,340 and the road at once authorized. On 15th November, Mr. Allen, as chief engineer, examined the route of location. He reported a line 14 miles shorter than expected and 5 miles less than the commonly traveled road. On 28th Dec. Messrs. Gifford, Holcomb & Co., contracted for building 4 miles of road, and 17th March, 1831, Messrs. Gray & Conty contracted for 30 more. The Eastern division to Branchville, 62 miles from Charleston, was opened for public traveling 7th Nov., 1832—being one year ten months and twenty-one days from its commencement. On 7th May it was opened to Midway, 72 miles. In May 1833, says the Report of Major Black, "the track is opened by felling the trees, two hundred feet wide, throughout the line, except within nine miles of the city, and a few miles in the valley of Horse-Creek near Hamburg, which has been deferred, owing to the reluctance of some of the landholders to have their timber destroyed.

"The excavations are entirely completed. Ditches and lateral drains, sufficient for present purposes, are formed. All the bridges to accommodate the public, neighborhood and plantation roads are built; the foundation, whether consisting of piles, sills, sleepers, or trussel work, is completed for the whole distance of 136 miles; the caps and transverse pieces are permanently fixed on for the distance of 135½ miles; the rails are laid and keyed, for 134½ miles; all requisite braces or stiffening to strengthen the road is completed for 134 miles; the iron is spiked down permanently for 93 miles; and the surface is prepared for 24 additional miles. Nine turn outs or passing places have been constructed; twelve pumps or watering-places have been established. The iron for Ware's contract, 6 miles, is delivered, and the balance of the road has its surface prepared for the reception of the iron, except about 14 miles.

"Amidst the many disappointments and difficulties, necessarily arising in an undertaking so novel and extensive, it must be matter of gratulation to reflect that the line of railroad, now finished, on which our engines travel, is greater in extent (in consecutive miles) than any other in the world."—EDITOR.

foundations of a more deep-rooted and abiding prosperity. The same influence has been felt in Savannah and Augusta, and indeed in all the cities of the Southern and South-western States where similar works of internal improvement have been executed, or are now in progress. So far, then, as this branch of our scheme is concerned; it is only necessary that we should persevere. We will only add, that these great works should be carried on in a liberal and patriotic spirit, without jealousy and distrust, with a determination to build up in the Southern and South-western States ONE GRAND SYSTEM, every portion of which, like links in a common chain, may tend to bind together all of its parts.

3d. LINES OF PACKET-SHIPS AND STEAMERS.*—The last point to which we deem it necessary particularly to advert, is the establishment of a regular line of packet-ships and steamers. This we deem to be indispensable to any success at all commensurate with our just expectations, or the vast extent of the productions and resources of the Southern States. Practical merchants alone can duly estimate the importance of being able to command their supplies from abroad, *at all times*, and at the *shortest notice*. The state of the markets, and the actual or expected demand for goods, must regulate importations, and if these goods cannot be *directly* imported when they are wanted, they must be imported through New York and the other Northern cities. It is true that the extension of the direct trade will of itself have a tendency to supply the requisite means for carrying it on, both as respects capital and ships; but as a first step it would be of incalculable importance that a regular line of packets to our principal sea-ports should give the same facilities to our Southern importers that are now enjoyed by those of New York. With these facilities our merchants would be enabled to enter into fair competition with the merchants of New York, Philadelphia, and Boston. We have already indicated the best, if not the only means of effecting this object. We recur to the subject here only to impress as deeply as possible upon the minds, not only of the members of this body, but of our merchants and fellow-citizens generally, the absolute necessity of exerting themselves *promptly* and *strenuously* for the immediate removal of this difficulty. Something may be effected by a concert of action among the ship-owners now engaged in the direct trade; but it is chiefly by the formation of companies or co-partnerships, composed of American and British Houses, that success in this object is to be secured. In one way, however, we may all render essential aid, not only in the accomplishment of this object, but in promoting all those measures on which the success of our whole scheme depends, *viz.*: by contributing to enlighten the public mind, by acting on public opinion, and exerting an influence in every way for the promotion of the object. If the people in this quarter of the Union could become duly impressed with the magnitude of this question, and the vital interests involved in it; if they could only be brought to feel in all its force the withering influence of the existing system on their prosperity and welfare; could they but realize the immense losses annually sustained by our being rendered tributary

* This day has already come, and we are to have lines of Southern steamships to New Orleans and Cuba.—Ed.

to the cities and merchants of the North, and perceive the incalculable advantages that would flow from the establishment of the **COMMERCIAL INDEPENDENCE** of the South and South-west—then might we confidently rely on the continued display of that noble zeal, that determined energy, and untiring perseverance, which, trampling down all opposition, would in the end assuredly crown our efforts with triumphant success.

In the attempt to enlighten the public mind, and influence public opinion on this subject, there is one instrument which may be successfully used, not only for the accomplishment of our present object, but also for the protection of all the other great interests of the slave-holding States—we allude to the establishment of one of those periodicals which, in modern times, has been found to exert almost a controlling influence over the sentiments and opinions of mankind. If the **PRESS** has effected a revolution in the moral condition of the human race, and is still found to exert a supreme dominion over the mind of man, one of the most imposing forms in which its mighty power has ever been exerted, is that of **REVIEWS**, which, conducted by master minds, and embodying the great truths of science, philosophy, and politics, are well calculated to form and control opinion, and thus to direct the conduct of men. While other quarters of the Union have such organs, through which to disseminate their principles and opinions, and to maintain the policy best adapted to their situation and institutions—the slave-holding States will never stand on an equal footing, until they too are possessed of a faithful exponent of their principles. The revival of the *Southern Review* is, therefore, an object of great interest to the South, and we would earnestly recommend that the earliest occasion should be seized for its re-establishment on a permanent basis.*

In prosecuting the views which have been thrown out for the consideration of the Convention, we utterly disclaim any unfriendly feeling toward our Northern brethren, or any portion of the Union. Though we openly avow our object to be the restoration of our trade, we shall attempt to effect it only by fair and honorable means, and in a spirit of generous rivalry. And though we have strongly deprecated the “unequal action of the Federal Government,” which, under a system of high duties, and extravagant expenditures, has operated so injuriously to our interests—yet we present these views, not in the language of *complaint*, much less in a spirit of *disaffection*—but as truly indicating the causes of the evils for which it is now proposed to provide a remedy. Nor do we wish to be understood as intending to exclude the productions of the northern States from our estimate of the advantages to be derived from a *direct trade*. Our object is, a free and open trade with the whole world—and all that we desire is, that in carrying on this trade, whether at home or abroad, our own ships and our own capital should be duly employed, and our merchants be allowed to participate in its advantages.

* The *Southern Review* has been revived, and is now under the able conduct of Milton A. Clapp, Esq. We believe that the whole South should sustain it, and as we rest our own claims too as a southern commercial work upon a common foundation, we invoke in our service and aid some portion of the spirit manifested by the convention in the above passage.—Ed.

ART. VIII.—THE CIVIL LAW.*

Explication Historique des Instituts de l'Empereur Justinien, avec le texte, la traduction en regard, et les explications sous chaque paragraphe. Précédée d'une Généralisation du Droit Romain. Par M. Ortolan, Professeur a la Faculté de Droit de Paris. Paris. 1844.

Manuel de Droit Romain, contenant la Théorie des Institutes, Précédée d'une Introduction a l'étude du Droit Romain; par F. Makeldey, ancien Conseiller intime de Justice de S. M. le roi de Prusse, Professeur Ordinaire de Droit à l'Université de Bonn. Traduit de l'Allemande par Jules Beving, avocat à la cour d'appel de Bruxelles. Bruxelles. 1841.

THE study of the Civil Law is daily becoming more common among the members of the American bar. Its principles of universal justice are gradually winning their way into favor. To America belongs the honor of having broken through the method of treating legal subjects, so universal and so long established in the country from whence we derive our judicial system. The most noted text-books of the law in England, are little else than collections of adjudicated cases, arranged with more or less method, and condensed with more or less ability. English lawyers, with few exceptions, seem entirely ignorant of the luminous order, the scientific arrangement, and comprehensive generalization of the civil law jurists. They are to this day liable to the criticisms of Legare—severe but expressive. "The most that can be said of them is, *par negotiis, neque supra*. None of them stand upon that 'vantage ground,' of which Bolingbroke speaks. They are mere *pragmatici*—who treat their subjects in a strictly technical manner, and whose whole system of logic consists of a case in point." The American student owes much to Mr. Chancellor Kent and Mr. Justice Story, for boldly engrafting the spirit of the Roman Code upon the sturdy trunk of the Common Law. They have set an example to the jurists of the United States, which has not been lost upon them, and which deserves to be followed by those of our fatherland.

The lucid method, the subservience of precedent to principle, and the enlarged views of justice, so conspicuous in the jurisconsults of the Civil Law, ancient and modern, are becoming the property of the American jurists. The elder Story has luminously arranged the general principles of equity jurisprudence, to be found in the *digests* of Fonblanque and Maddock; and Greenleaf and the younger Story have ably epitomized and reduced to order the ponderous collections of Starkie and Chitty, jr. The asperities of the common law are beginning to be ameliorated by a judicious intermixture with a system, the result of the intellect of the greatest people the world has ever seen, working through a period of thirteen hundred years. We have reason to hope that the time is not far distant when the common and the civil laws shall have been mutually rendered more perfect by the mingling of the superiorities of both—when the universal

* It does not fall without our plan to give to law its passing tribute; though philosophical disquisitions we may avoid. The paper which follows is half of a contribution with which we have been favored. However able it may be, we would have greatly preferred an article on the law of debtor and creditor in Tennessee or in any other State as matters of "practical law;" or what the author in his private letter promises us, an article or articles relative to the "History and statistics of the State of Tennessee." We trust it shall soon be forthcoming.—EDITOR.

principles of justice, to be found in either, shall have been blended and combined into one—and when a code of law more just and perfect than any separate system shall have been formed by a combination of all that is admirable in either. Then, indeed, we may apply to the law the so oft quoted expression of Lord Coke, that it is the “perfection of human reason” (Coke Litt., 97, b., and 232, b.), which seems so out of place in the cumbrous and uncouth law of real property, as collected by that learned judge. Then, too, may become applicable the repeated suggestion of the same writer to the student to study the reason of the law (Coke Litt., 183, b., 232, b.), for then alone will there be any reason in such advice.*

That Rome should have built up so enlarged a system of jurisprudence, is often a subject of wonder. Her continuous military career, the perpetual commotions among her restless people, would seem to be incompatible with improvement, much less comparative perfection in that department, apparently so exclusively suited to flourish in a state of peace and quiet. How could the temple of Justice rise in such goodly proportions in the midst of incessant strife, internal and external? It is not our intention to devote the present paper to a solution of this question. One or two general observations are all that we can permit ourselves to make.

The Common Law may be considered as dating its origin from the conquest of William the Norman, in the 11th century. It is true, that previous to that period, the Saxons may have made some advances in legal science. English historians still refer to the days of Alfred as a kind of Saturnian period in their career as a nation—and the age of that great monarch is looked upon as an era in the judicial history of the British people. But the Norman conquest, unquestionably, destroyed the entire system of Saxon law. The establishment of the feudal system, with its peculiar relation between lord and vassal, and its destruction of all importance attached to the possession of any but real property, sufficiently attest the truth of this remark. The few traces which the legal antiquarians of England may have discovered in the law as it has existed since the conquest, of the institutions of their Saxon sires, only serve to show the extent of the revolution. Since that period eight centuries have elapsed. How wonderful has been the change! How rude were the first elements of the law in relation to the rights of persons! How silent and non-existent in relation to personal property and mercantile transactions! How cumbrous, nay, barbarous, in relation even to real property! From these rude beginnings, in this period, how magnificent a science has been produced—embracing every department of life—every modification of property—every relation of the

* By the way, it is not a little strange, that the expression of Lord Coke, in relation to law being the perfection of human reason, should be dwelt on with so much complacency by the common lawyer, when we consider the context, “Nihil quod est contra rationem est licitum,” for reason is the life of the law, nay, the common law itself is nothing but reason; which is to be understood by an *artificial perfection* of reason, gotten by long study, observation, and experience, and not of every man's *natural reason*; for, *Nemo nascitur artifex* (Co. Litt. 97, b.) One can easily fancy the astute old commentator himself smiling at the idea of defining the law of warranty in his day as the “perfection of natural reason”—or, in fact, of any reason except *strictissimi juris*, an “artificial perfection of reason.” Of a truth, as to such reason, *nemo nascitur artifex*.

human family. It is true, the common law has enjoyed the benefits of the rich treasures of Roman lore ; but how little has been borrowed from these sources, exclusive of some few well-known branches of the law, is familiar to every person, at all conversant with the narrow spirit of jealousy toward the civil law, which has in every age influenced the expounders of the common law. It may safely be said, that the more perfect parts of our law have been least indebted to the collections of Justinian ; such, for example, as those which relate to civil and political liberty, to personal rights, and to the different relations of men in a state of society. Eight centuries have sufficed to build up the present system of English and American jurisprudence.

The result of modern investigation would give to Rome a much earlier date than the one commonly received. Long before the age of Romulus, nations or tribes existed in established society, where subsequently stood imperial Rome. The rude institutions of these aboriginal tribes, were unquestionably incorporated into, and became a part of, the laws of him who is commonly reckoned as the founder of the Roman empire. It seems equally certain that these laws, improved by the lapse of subsequent centuries, modified and changed by senatorial and democratic enactments, were condensed into the twelve tables. Niebuhr emphatically remarks, that the twelve tables were nothing more than the ancient statutes customs and institutions, consolidated. And such is the opinion of all modern investigators—Gravina, Gibbon, Bonamy. The intrinsic evidence of the tables themselves clearly demonstrates a Roman origin. If, then, we take the commonly received date of the building of the city as the commencement of the civil law, we shall have a period of thirteen hundred years from that time to the age of Justinian. This single fact appears sufficient to explain the perfection of the Roman law, when we consider the unquestionable capacity of the Roman mind. It would be impossible, it seems to us, for any nation possessing the Circassian intellect, to flourish through so long a period, without attaining to a high degree of perfection in everything pertaining to the rights and duties of men in a state of society.

It is certain that no nation, of whose history we have any record, presents so unvaried a picture of internal disorder and external conflict, as the Roman people. From the cradle to the grave, war, in all its forms and varieties, marks her course. Externally, she fought, at first for existence, and afterward for the conquest of the world. Internally, her restless *demos* in the beginning contended with the patrician for supremacy ; then her servile population strove for political privileges ; and subsequently her prætorian soldiery drenched her fields with fraternal gore. Nevertheless, a state of war seems by no means incompatible with a flourishing legal system. The history of England is even more replete with civil commotions than the era of the kings of Rome ; and not even the imperial city carried on more incessant foreign wars than the Saxon Isle. In truth, high and continued excitement seems not opposed to improvement and progress. Every faculty of the mind is roused to action. The succession of great men which marks every period of ancient Rome—the equally conspicuous array of English genius—the superior men who

render memorable our own revolution—and the blaze of intellect which encircled the narrow soul of Robespierre and the mighty mind of Napoleon—all inculcate the startling paradox, that excitement and commotion foster and bring forth intellect, and that inaction tends to lower human capacity. .

Her continued career of victory and prosperity, moreover, must have aroused all Rome's latent talent. Success, perpetual and unexampled, intoxicated her people. This fictitious exhilaration would of itself suffice to explain much that appears inexplicable. That must indeed be a dull nation which is not aroused by universal victory and conquest. Man's mind, it is a remark the world over, expands with his circumstances and his responsibilities. The same equally holds good of nations. The belief of superiority aids much in the improvement of a people. The victories of the first Stadtholders made the proverbially dullest nation in Europe, for a time, take an elevated stand among the contemporary nations. Prussia owes everything to the wars of the great Frederick; and the Emperor of Muscovy might have been burrowed in perpetual snow, but for his conquests over the Swedes, the Turks, the Poles, and the French.

In addition, Rome was emphatically a nation of law—her people a law-abiding race. In this she stands pre-eminent above all nations, ancient or modern. Strict observance of her rules and ordinances marks every portion of her career. The child owed abject submission to his father, the soldier to his general, the client to his patron, the slave to his master—even the debtor to his creditor. The parent was armed with life and death over his offspring: the commander could decimate his soldiers for cowardice or disobedience; ingratitude to patrons was punished with death; and death could be inflicted upon a refractory slave. No nation, ancient or modern, can show as strong an array of severe laws, so subserviently obeyed. Can it be a subject of wonder that a nation, so constituted, should have built up a system, lasting as time, and boundless as the limits of the earth?

There are three methods of treating of the Roman law. First, the exegetic—or the explication of the sources of the law which have reached us, according to the rules of criticism and interpretation. Second, the dogmatic—or the systematic exposition and development of the principles drawn from the sources of the law now in force. And third, the historic method—or a history of the sources of the law, and, in particular, of the origin and progressive formation of each branch of the law.

Each of these three methods of treating the positive laws, has its own peculiar merit and utility, and neither can entirely dispense with the other. The student must not confine himself to any one to the exclusion of the rest. They mutually aid each other, and, like the different branches of the common law, must be studied in order to appreciate the whole. The explication of those sources of the law—those works and collections which have come down safely through the course of ages—forms the first and most important base of the study of all positive law. The dogmatic method shows us the law actually in force in its practical application—while the history of the law indicates the reasons, historical and political, of the law as it may

exist at any specified period, and enables us to understand its spirit and true intent. No system of laws can be fully mastered without a union of these different methods. A knowledge of the requirements of a particular code would be but a barren acquisition, without some knowledge of its rise and progress, and some reference to its sources. The American student may gain an acquaintance, both pleasing and instructive, with the beauties of the code about which we are treating, by making himself familiar with such works as are easy of access and open to all. Gibbon's beautiful sketch in his matchless history, Kent's masterly analysis in the first volume of his commentaries, Cooper's Justinian, Evans' Pothier, and that portion of Adams' Roman Antiquities more particularly devoted to the Roman laws, will enable the purely English student to appreciate some of the merits of that system which has been the object of admiration to all modern intellect. Taylor's work on the civil law, and the English translation of Donnat, may enable him to quaff more abundantly. Of course, a more intimate knowledge can only be obtained by recourse to collections of the law itself—the *corpus juris civilis*—and a perusal of the works of some of the great European commentators, which have not yet assumed an English dress. The work of M. Ortolan, which we have prefixed to these pages, has obtained considerable celebrity in France as a comprehensive comment on the Institutes of Justinian—and the Manuel of Makeldey has even greater popularity, among German students, as a masterly epitome of the Roman law.

Professor Ortolan commences his commentary by what he calls a generalization of the Roman law. "It is not without motive," he says, "that I have adopted the title of generalization. The rules of the Roman law are, for the most part, especially in the imperial constitutions and in the fragments of jurisprudence, contained in particular decisions of different kinds. In order to extract them, it is necessary to perform a veritable operation of generalization. This operation is even the more necessary when it is desired, as I have attempted in this introduction, to sum up in few words the historical changes of legislation, and of giving, in relation to each subject, the ruling thought (*la pensée la plus générale*) of each period." He divides his introduction into two parts, in the first of which he treats of law (*droit*) and the elements of its production—in the second, of rights (*droits*) and of actions. And, with the usual methodical arrangement and acute discrimination of the civil law writers, he subdivides until a common lawyer becomes almost bewildered by his numberless general ideas. He accompanies each paragraph of the Institutes by a comment explicative and historical—and, at intervals, goes at length into the origin and progress of the Roman jurisprudence in particular branches—and concludes each natural division of subjects with a general summary. Such a work is a decided desideratum to the American student. The ordinary edition of Justinian's Institutes, edited by the late Thomas Cooper, of South Carolina, is little more than a naked translation, the Latin text being by no means pure, with some references to common law decisions. It is easy to see that much of the spirit and beauty of the Institutes is lost, without some additional assistance. It requires an exegetic, historical comment, like that of Prof. Ortolan, to enable him to understand and

appreciate the labors of Trebonius and his compeers. M. Ortolan, in our opinion, as a legal commentator, has one fault, not uncommon in his fellow-countrymen—a too great fondness for fine writing. He is a little too wordy. We should admire his work much more if couched in the plain but perspicuous style of Pothier. His work may be recommended, however, as supplying a want sensibly felt by the student in his first entry upon the broad ocean of civil jurisprudence.

Of Makeldey we can speak in terms of more unmeasured praise. He begins with an introduction containing information, general, historical and literary, necessary to the study of the Roman law. We cannot give a better idea of this excellent summary, than by quoting the contents of this introduction. It is divided into six sections.

The first treats of “the general ideas of law, and of jurisprudence.”

The second, of the history of the sources of Roman law, divided into four periods: 1st period, from the foundation of Rome to the XII. tables; 2d, from the law of the XII. tables to the age of Cicero; 3d, from Cicero to Alexander Severus; and 4th, from Alexander Severus to Justinian.

Section III., of the fate which the Roman law experienced after the time of Justinian—1st, in the East, and 2d, in the West.

Section IV., of the introduction of the Roman law into Germany, and of the use which is made of it at this day.

Section V., of the collection of the sources of the Roman law—of the *corpus juris civilis*—of its parts and of its different editions.

Section VI., of the different methods of reference, and of the bibliography of the Roman law: 1, ouvrages bibliographique; 2, ouvrages lexicographiques; 3, ouvrages hermaneutique; 4, ouvrages exegetiques; 5, Histoires et antiquites; 6, ouvrage dogmatique.

This last section contains a “bibliographie choisie du droit Romain”—a choice selection of civil law writers, quite as formidable as would be a list of common law commentators. It will be seen, that this introduction gives the student quite an insight into many subjects connected with the study of the civil law—a sort of bird’s-eye view of the magnificent prospect—and, at the same time, by its catalogue of books, affords him the means of extending his researches as far as his inclination or leisure may permit.

The Institutes of the Roman law follow this introduction, divided into a partie générale and a partie spéciale. In the former, the writer generalizes the principles of the Roman law as in force in Germany—being more limited than the generalization of Ortolan, in this, that it is simply dogmatic, not historic, exegetic, dogmatic. The second part contains a succinct epitome of the Roman law, designating that which is in force in Germany, under the titles of: 1, real rights (rights of things, to use Blackstone’s language, but comprehending both real and personal property); 2, obligations; 3, of rights of family (droits de famille); 4, of the law of succession; and 5, du concours des créanciers—a head of less general interest. This work of Makeldey is not confined to the Code, Pandects and Institutes, but embraces such of the subsequent Novels of the emperors as have been glossed or commented upon, and which are in force in Germany. We cannot refer the inquisitive student to a more excel-

lent work, with which to begin his acquaintance with the body of the civil law.

With such aids, what would otherwise be a task becomes a labor of love. There can be no more interesting employment than the tracing laws to their origin, investigating their causes, understanding their reason and their effects, and imbibing the full spirit of the enlarged lawgivers. It is equally pleasant and instructive to compare the common and the civil law, to note their diversities and their resemblances, and to search into the causes which have led to similar or different legislation upon the same subject-matter. It is to be hoped that our subsequent remarks, wherein the above objects have been kept in view, may not prove altogether unprofitable or uninviting to those who may be desirous of becoming acquainted with a branch of the Roman law little known to the common law bar.

In the beginning of all judicial systems, form predominates over spirit, or even substance. A rude and barbarous people require outward signs in all proceedings. It is only after they have become more refined, and knowledge has been largely disseminated, that the outward covering of visible, tangible acts is cast aside, and the spiritualized system shows itself in naked beauty—truly, when unadorned, adorned the most. The uneducated man needs something material, outward, to fix his attention. An act purely mental is to him no act. The senses, the physical impressions, have more influence than intellectual impressions. Form is the visible, sensible appearance, says Ortolan, the material element, the terrestrial garment given to the thought. Writing being unknown, or little practised, the acts of men, the presence of witnesses, the performance of some manual deed, must supply its place. As civilization advances, judicial institutions, as everything else human, become more spiritual. Men begin to be capable of appreciating the idea, without the outer habiliment. Finally, form is entirely dispensed with, only so far as it may be absolutely essential to reveal the will and intention. These facts are remarkably exemplified in the two systems of law now battling for supremacy among the moderns—the common and the civil law. The *alienatio per æs et librum*, the *manuum consortio*, the *hasta* used at public sales, the glebe—portion of soil carried before the prætor in controversies about land—the touching of the ear in calling upon witnesses to testify to a summons, exemplify strikingly this feature of the primitive Roman jurisprudence. The pure civil law, as contradistinguished from the *jus gentium*, *jus naturale*, and prætorian law, is full of these acts, introduced to satisfy the desires of a rude people for tangible appearances in judicial proceedings. The primitive common law was equally prolific in such outward signs—from the delivery of seizin by actually going upon the premises and delivering to the party a visible object, to the earnest penny given to bind the bargain. Both systems underwent the same process of change. The symbolic act, so essential at first, gradually fell into desuetude, and ceasing to be understood became ridiculous. The forms of his forefathers are the mirth and ridicule of Cicero (*pro Murena XII.*), as are those of the common law the subject of amusement to the author of the *Comic Blackstone*.

The strictness in unessentials, which marked the course of the com-

mon law with such frequent instances of glaring injustice, was equally conspicuous in the early Roman jurisprudence. In each system certain forms of procedure, applicable to the varying wants of litigants, were invented, and strict adherence imperatively required. The variation of a word, as will be seen presently, was as fatal in the one as in the other. But the parallel stops not here. As the Roman lawyers endeavored to conceal these forms from the common people by profound secrecy and varying auspices, so the common law jurist locked up the secrets of his science in verbose formulæ and a barbarous law idiom. As centuries were required to throw open the road to all in the one case, so was it also in the other.

It is remarkable, also, that the same steps were taken in both systems to obviate these glaring defects, and to simplify the science of law. Fictions were at first resorted to. They were intended to produce a transition from the primitive law, rude and inflexible in its forms, to a law more just and equitable. To extend the results or consequences of the laws to cases which are outside of its dispositions, or to obviate the effects of a too rigid adherence to the letter of the law, a resort is had to the supposition of facts which never existed. Fines and common recoveries, the fictitious actions of ejectment and trover, will immediately occur to the student of Coke and Blackstone. The Roman system was even more prolific in this respect than its rival. The *jus postliminium*—by which a citizen taken by the enemy, if he returns, is considered as never having left the State; and if he never returns is supposed to have died at the moment he was taken (Dig. 49, 15, 16); the supposition in one case that the right of prescription had been acquired, when in reality it had not (Inst. 4, 6, 4—Gai. 4, 36), and the supposition that it had not been acquired in another case, when in truth it had (Inst. 4, vi., 5), in order to effect the ends of justice; the assuming the quality of citizen in a stranger (Gai. 4, 37); and the existence, contrary to the truth, of the quality of heir (Gai. 4, 34);—are a few of the instances in which a sense of equity has compelled a resort to fiction in order to obviate deficiencies or severities in the civil law.

The formation of a new court, acting upon entirely different principles from the courts which administered the primitive law, was another mode of escaping the stern letter of the law adopted under both systems. The honorary jurisdiction of the prætor at Rome, and the equitable jurisdiction of the keeper of the king's conscience in England, owe their origin to precisely the same causes; and the result, in both systems, may be said to have been similar. The unnecessary forms of the common law, as has happened long since with most of its actual inconsistencies and iniquities, are fast disappearing, outside of all statutory enactments, under the ameliorating influence of equitable principles. The rude and barbarous code of the twelve tables, and the superstructure built thereon, gradually waned under the liberal edicts of the prætor, until the last remnants were swept away by the unsparing hand of the imperial innovator.

"The law," says Prof. Ortolan, "is, at first, that which is ordered, a rule prescribed by the legislative power. Afterward, it becomes *quod semper æquum et bonum est* (Dig. 1, 1, 11, f. Paul), *ars boni et æqui* (Ib. Ulpian)—that which is always good and right—a defini-

tion altogether spiritual." The civil juriconsults, far more even than my Lord Coke, dwell on the necessity of the existence of reason in law. "Quod vero contra rationem juris receptum est, non est producendum ad consequentias" (Dig. 1, 3, De Leg., 14, frag. Paul.). "In his quæ contra rationem juris constituta sunt, non possumus sequi regulam juris" (Ib. 15, frag. Julian). "Quod non ratione introductum, sed errore primum, deinde consuetudine obtentum est: in aliis similibus non obtinet" (Ib. 39, fr. Cels.). How very like my Lord Coke: "Ratio est anima legis (1 Inst. 394, b.); lex plus laudatur quando ratione probatur"—the reason of the law is the life of the law (Ib. 183, b.). "Nihil quod est contra rationem est licitum" (Ib. 97, b.). "Lex humana est quoddam dictamen rationis, quo diriguntur humani actus" (2 Inst. 56). Peradventure my Lord Coke may have sipped some little from the stream of the civil law through the intervention of Bracton. "Lex est sanctio justa," says that writer, "jubens honesta et prohibens contraria."

The student of the common law will find in his study of the civil law, at every step, something to remind him of his own admired system. He will discover that the resemblances are not confined to generalities. He will observe many particulars, not confessedly drawn from this source, so analogous as to leave him in doubt whether they were not transferred from the Digest to some of the early collections of English law. The pleadings, as we shall presently see, both when *vivâ voce* and afterward, when reduced to writing, present points of striking resemblance, and were introduced for the same object—the reducing the controversy to a point for trial by the country. The functions of the *judices* and *centumviri*, it is generally supposed, were similar to those of a modern jury. In this connection, we cannot forbear calling attention to the fact, that the interdiction, *de libero homine exhibendo*, was precisely our writ of *habeas corpus*. It was an order addressed to any one who detained a free man, and required his instant production. "Quem liberum dolo malo retines, exhibeas." It was granted instantly upon the demand of any person. The analogy is so striking as to be noticed by Ortolan himself: "Le writ d' habeas corpus," he says (Général., §100), "de l'Angleterre n'est pas autre chose." We may also notice the equally remarkable coincidence in the well-settled principle of both laws, that a man's house is his castle, and may not be broken into for the purpose of serving civil processes. "Plerique putaverunt," says the Pandects, "nullum de domo sua in jus vocari licere, quia domus tutissimum cuique refugium atque receptaculum sit, eumque, qui inde in jus vocaret, vim inferre videri" (Dig. 2, 4, 18).

One of the most valuable portions of the work of M. Ortolan is his admirable analysis or exposé of the different judicial systems which prevailed among the Romans. In the common law the practice of the courts has been uniformly the same. At the date of the conquest of William the Norman, the system which seems to have prevailed among the Franks and Lombards, borrowed perhaps from one of the Roman systems of procedure, was introduced into England. See, upon this subject, the appendix to Sergeant Stephens' luminous work on Pleading, notes 28 and 37, where the probable origin of special pleading is acutely discussed. The plan in Eng-

land, since that date, has been to reduce the matters in litigation to as few points as the nature of the subject would admit, so that the parties might know the evidence necessary to be introduced, and the jury might be able to pass upon the questions of real difference. At first, this was brought about by oral allegations, made by the litigant parties, or their counsel in open court, afterward by allegations in writing. While the practice was still in its infancy, inconsistencies and variations doubtless occurred. But the science of special pleading soon assumed its present shape, and has continued, in substance, to be the form of procedure in the courts of common law down to this day. The points of resemblance between this system and the early system of judicial procedure at Rome will presently be pointed out. In our chancery courts, the proceedings have always been by bill and answer, that is, statements at large by the parties of their demand and defense. Among the Romans we find, however, in the conduct of suits in court, three periods of marked distinction; not that these periods are clearly separated by a point of time—the one terminating abruptly, and the other commencing *eo instanti*; on the contrary, these systems gradually run into each other, rendering it difficult to designate with absolute certainty the exact steps which produced the change. Nevertheless, it is easy to distinguish three different methods, and to mark, with sufficient precision, the periods at which the one may be considered to have ceased to predominate, and the other to have become the leading and preponderating system. It is hoped, that it will not be considered uninteresting to the American student to trace somewhat in detail these different systems. We shall endeavor, as succinctly as the nature of the subject will admit, to give a general outline of these systems, and then specify more at length their peculiarities. For this purpose we shall borrow largely from Prof. Ortolan.

(To be concluded in our next.)

Art. IX.—ILLINOIS.

ITS CONQUEST DURING THE AMERICAN REVOLUTION, BY THE ARMS OF VIRGINIA, UNDER COL. GEORGE ROGERS CLARKE.

In a note accompanying the present article we are promised one upon the "Resources, Internal Improvements, &c., of Virginia." We trust that this paper will not be delayed, since its publication would be of essential service throughout the Union—so interested are we all in the OLD DOMINION. On the strength of the promise, we announce the article as in preparation.—EDITOR.

THERE are, in the history of Virginia, a series of exploits, perhaps not generally known, and yet too brilliant ever to be forgotten. They are fraught with interest, for in them we have all the boldness and adventure of distant conquest, without the bloodiness of battle; and all the fruits of victory, without the horrors of war. And perhaps their most engaging, as it is their most remarkable feature, is, that though undertaken to repel and avenge the most relentless depredations and massacres, they were performed in a manner that is an honor to humanity.

It may be deemed somewhat hardy to attempt to draw off attention from the grander and more exciting themes of history, to the achievements of a single State; to forsake the highways of military glory, beaten by the Alexanders, Hannibals, Cæsars, Napoleons, and Wellingtons, of other times and other countries, for the by-paths of the West, first trod by the gallant Clarke and his followers. But at the time of which I shall write, neither the "old Dominion" nor her sisters had become overshadowed by the Federal Government; and the deeds to which I propose to direct attention, had an important bearing upon the results of the great central epoch in our national history—the war of our independence. However strong, then, that spirit of centralization, which ever merges the circumscribed and unpretending in the grand and the comprehensive—the affairs of the State in those of the Union—let us now resist its influence and turn our attention to the conquest of Illinois, by George Rogers Clarke, who, as Professor Tucker says, "was endowed with every military virtue and talent."

The region of country formerly called Illinois, embraced a territory which is now covered by several States. It belonged to, or was claimed as a part of, both Florida and Louisiana, and was divided into West Illinois and East Illinois by the Mississippi river. The name of Florida was once applied to the country along the Atlantic coast, extending from the present State of that name even north of Virginia; and this region, especially the southern part, was represented by the early discoverers as a perfect paradise, possessing not only every beauty and bounty of nature, but also springs of immortal youth. In the rear of this terrestrial paradise was a vast, unexplored interior, with its virgin forests, flowing streams, and fertile soil, scarcely less lovely and inviting. As discovery progressed, French and Spaniards pushed forward their explorations, chiefly along the almost endless rivers of the West, and extended the names of Florida and Louisiana almost to the farthest limits of the continent. Involved in the fate of these, Illinois passed under many masters, both kings and subjects, until in 1763 it was ceded by France to Great Britain, at the close of the French and Indian war.

Just about the time that George Washington left his chain and compass to bear Governor Dinwiddie's letter to the French commandant on the Ohio, there was born one who was destined to be trained in the same occupation, for the service of his country—George Rogers Clarke, who was born in the county of Albemarle, Va., in September, 1753. Of his early years little is known. He had but an ordinary education, but was quite a proficient in geography and mathematics. He adopted the employment of a surveyor, and thus acquired those tastes and habits of observation, and that love of adventure, which are so necessary for a pioneer and a frontier warrior.

He engaged warmly in Gov. Dunmore's war with the Indians, and after the hasty and perhaps corrupt conclusion of peace, was offered a commission in the royal service, which he refused. Kentucky, then containing few settlers, but full of adventure, and inviting to emigrants, attracted his daring spirit, and he went thither in 1775. Having visited his native State, he returned to Kentucky in 1776.

Of this return, there is the following anecdote, from Gen. Ray : "I had come down," said the general, "to where I now live (about four miles north of Harrodsburg), "to turn some horses out in the range. I had killed a small blue-winged duck, that was feeding in my spring, and had roasted it nicely on the brow of the hill, about twenty steps east of my house. After having taken it off to cool, I was much surprised on being suddenly accosted by a fine, soldierly-looking man, who exclaimed: 'How do you do, my little fellow? Ain't you afraid of being in the woods by yourself?' I invited the traveler to partake of my duck, which he did, without leaving me a bone to pick, his appetite was so keen; though he should have been welcome to all the game I could have killed, when I became acquainted with his noble and gallant soul." After satisfying his questions, young Ray inquired of the stranger his name and his business in this remote region. "My name is Clarke," he answered; "and I have come out to see what you brave fellows are doing in Kentucky, and to lend you a helping hand, if necessary." Ray, then a boy of sixteen, conducted Clarke to Harrodstown, where he spent his time in making those observations on the condition and prospects of the country natural to his comprehensive mind, and in assisting at every opportunity in its defense.*

He took a very prominent part both in its military and civil affairs, and is styled by the historian, "the earliest founder of the commonwealth."

The Revolution was now in full progress, and war was waged against us, not as fellow-Englishmen, or even fellow-beings, but as *rebels*, to whom no quarter was due. When the abilities of so-called civilization are thus misdirected, they become the most frightful means of inhumanity and destruction. It required some of the ingenuity of enlightened minds to devise such modes of warfare as were employed, inciting slaves and savages against us. The mere existence of the war was sufficient to impel the Indians to deeds of barbarity. Hitherto, and very recently, they had seen the country supplied with troops from abroad, and Americans and English battling in each other's behalf, and themselves kept in awe by the threatened and experienced power of England. But now, this union was severed, and they who lately fought side by side, were now arrayed in deadly hostility. How natural for them to infer the worst against the colonists, from this reversed attitude of their former friends; and for every cause of discontent and every feeling of revenge to receive new strength! But when to this is added the fact, that they were influenced even by falsehood and misrepresentation, and stimulated by bribes, we can conceive to what a pitch their resentment and enmity were wrought up. Murder, rapine, and fire ravaged the whole frontier.

In these days of quiet, in our own polished and happy homes, we can hardly appreciate the dangers and privations of those times. But if we will recall to our imaginations the flourishing state of Cherry Valley, in New York, with its river, and "fair Wyoming,"

* Butler's Kentucky, p. 37, note. The other works referred to in the preparation of this paper are—Wirt's Life of Patrick Henry; Tucker's Life of Jefferson; Marshall and Sparks' Life of Washington; Girardin's Continuation of Burke's History of Virginia; National Portrait Gallery—George Rogers Clarke; Brown's History of Illinois, &c. But I am chiefly indebted to Butler, who was quite closely followed by Brown. .

"Once the loveliest land of all,
That see the Atlantic wave their morn restore,"

with its frightful desolation by those monsters, Butler and Brandt, we will better understand to what enormities the ruthless savages were incited. At the time of Clarke's expedition, these horrid scenes had not been enacted; but those in the West sprung from the same sources, and were fraught with the same appalling consequences.

Kentucky suffered especially. Her infant settlements, suddenly devastated, were sometimes deserted by the fortunate survivors. Men at work were shot down by the lurking savage, and bodies of them waylaid and exterminated.

Many instances of romantic adventure and noble daring occurred, but we can only mention the following: Young Ray was remarkable for his swiftness of foot, by which means he once escaped a body of savages, who caught and killed his brother; and, making his way to the fort, was enabled to give them timely warning, and prepare them for the expected attack. He also proved exceedingly useful in furnishing provisions, which he procured at great risk of his life. One day, he was with one McConnel, who was trying his gun at a mark, near the fort. McConnel was suddenly shot dead. Ray, following the direction of the shot, perceived the enemy; but, while attempting to avenge his friend's death, he was attacked by a body of Indians who had crept up unseen. He retreated with his usual speed, but for one hundred and fifty yards was exposed to a constant fire. When he reached the fort, they dare not open the gates to him. With singular presence of mind, he threw himself flat on the ground, behind a stump, right under the walls of the fort. The bullets flew thick around him, and even threw the dirt upon his body. His mother witnessed his danger, but could not relieve him. At length, the happy thought struck him, and Ray called out, "For God's sake, dig a hole under the wall, and take me in!" This strange expedient was adopted, and he was taken safely in, though he had been exposed for four hours to the fire of the enemy.*

Clarke now formed the bold design of checking the merciless ravagers, and of erecting a barrier against them, by capturing the British posts in Illinois, which he justly regarded as the sources of most of the expeditions against Kentucky. He also saw the great advantage to Virginia, of extending her dominion and removing farther from her borders the theatre of Indian barbarities.

Accordingly, in 1777, he sent two spies to Illinois, to ascertain the disposition of the inhabitants and reconnoiter the posts of the enemy. Without knowing Clarke's object, they confirmed all his suspicions as to the instigation of the Indians, and brought encouraging intelligence of the friendly feelings of many of the inhabitants toward the Americans. His resolution was immediately taken, and in October, 1777, he started to Virginia, to lay before the Governor his plan of a campaign against Illinois.

The war of the Revolution had been waging with various success. Burgoyne had been captured; but the joy at this happy event could not dispel the uncertainty which hung over the contest. And even this brilliant success produced disaffection, and led partly to a con-

* Butler's Kentucky, p. 43.

spiry for supplanting the "Father of his Country," and putting in his stead the victorious Gates. The situation of the colonies would seem to have demanded all the resources of the State; but fortunately for Clarke, he had to deal with a man of rare comprehensiveness and capacity; and he found his plans warmly espoused by Patrick Henry, the first Republican Governor of Virginia. This great patriot might himself have proved no ordinary soldier; he never had much opportunity of fully displaying his military genius; but was once about to enter upon a military career, and we concur with Mr. Wirt, that there was good reason for anticipating eminent success. His humanity now, no doubt, prompted him to rescue the bleeding frontier, while he could well appreciate the political and military advantages of the proposed expedition. After several consultations, from the 10th of December, '77, the Governor and Council gave Clarke authority to raise seven companies of fifty men each, in any county of the State, with £1,200 in money, and an order on the officer at Fort Pitt, now Pittsburg, for ammunition, boats, and other necessary equipments. As the scheme depended upon secrecy, the Governor consulted only a few prominent individuals; and George Wythe, George Mason and Thomas Jefferson, promised, in case of success, to exert their influence to procure a grant of 300 acres of land to each man who should join the standard of Clarke. Two sets of instructions were given him; one open, directing him to proceed to the defense of Kentucky, which appearing to many to be a useless dispersion of force, threw impediments in his way of raising men—the other secret, directing him to strike a blow at Kaskaskia. These instructions, given under such great provocation, and to redress such grievous injuries, reflect immortal honor upon Governor Henry and the State. Though Clarke was going against such implacable foes, Governor Henry rises above all sordid and revengeful feelings, and says, "It is earnestly desired that you show humanity to such British subjects and other persons, as fall in your hands. If the white inhabitants, &c., give undoubted evidence of their attachment to the State * * * let them be treated as fellow-citizens, and their persons and property duly secured. Assistance and protection against all enemies whatever shall be afforded them; and the Commonwealth of Virginia is pledged to accomplish it. But, if these people will not accede to these reasonable demands, they must feel the miseries of war, under the direction of that humanity that has hitherto distinguished Americans; and which, it is expected, you will ever consider the rule of your conduct, and from which you are in no instance to depart."* These injunctions were in exact consonance with Clarke's own feelings, and were gladly obeyed.

After overcoming many obstacles, and resisting attempts to divert him from his plans, as he descended the Ohio river, he succeeded in reaching the falls of the Ohio, where he fortified Corn island, opposite to Louisville. Here he first announced the true destination of his expedition, and it was received with acclamation, by all but Capt. Dillard's company. The greater part of these, with a lieutenant whose name is generously spared, basely deserted him at night thereby still farther reducing his force, already too small, from disap-

* Brown's Illinois, p. 239, note.

pointments and the inexpediency of drawing too many from the defense of Kentucky. For its defense, a part of those with him were to return home, and a day of rejoicing was spent between them and their comrades destined for the reduction of Kaskaskia.

On the 24th of March, 1778, all was ready, and the gallant band moved down the Ohio. Intending to march by land to Kaskaskia, from the nearest point on the Ohio, they were equipped in the lightest possible manner. Clarke longed to strike a blow at the more important point of St. Vincents, now Vincennes; but his small force, consisting of only four companies, under Montgomery, Bowman, Helm and Harrod, and the nearness of Kaskaskia to the Spanish settlements west of the Mississippi, to which he purposed to retreat in case of defeat, and the hope of securing the influence of the French, who have always been most successful in gaining the confidence and affections of the Indians, and, we may add, the instructions given him, all induced him to forego this chosen object for the present. After leaving Fort Pitt, the commandant there had sent him the gratifying intelligence of the alliance of the French; and this important fact proved of great service during the expedition.

Near the mouth of the Tennessee river, they stopped a party of hunters, recently from Kaskaskia, from whom they gained useful information. M. Rocheblave was then in command there. The militia were kept in good order and on the look-out for the Virginians; the fort, though without a regular garrison, afforded a safe retreat, and if any attack were anticipated, the assailants would meet a warm reception. A surprise was, therefore, all important. Having enlisted these hunters, they proceeded down the river to Fort Massac (contracted from Fort Massacre), whence they took up the line of march, in a north-western direction, through a comparative wilderness, toward Kaskaskia. They endured many hardships, and were badly provided with food and water. On the third day, their guide, John Saunders, lost his way, and being suspected of treachery, as he had frequently traveled the route, was threatened with certain death, if he did not extricate them from their critical situation. Far in a hostile country, in momentary expectation of being betrayed into the hands of an enemy, with whose tender mercies they were but too well acquainted, their alarm may easily be imagined. But fortunately, after making a thorough examination, with a guard over him, Saunders recognized a familiar object, established his innocence, and every heart was again bounding with hope. The pleasant reaction of their minds must have borne them on for many miles.

On the evening of the memorable 4th of July, 1778, they came within a few miles of the town, where they lay till dark, when the march was resumed. They learned from a prisoner taken, that the militia had been under arms a few days previous; but no cause of alarm appearing had been disbanded, and all was now in unsuspecting security. Boats were provided for the transportation of the troops; two divisions were to repair to different parts of the town, while Clarke with a third was to take possession of the fort on this side of the river. If he succeeded, the other two divisions were to occupy certain parts of the town, and to send runners through the streets giving warning in the French language, that "all who appeared

would be shot down." Entering the fort through a postern, which was shown him by the prisoner they had taken, Clarke possessed it without resistance. The town of about two hundred and fifty houses was surrounded, every means of intelligence cut off and the inhabitants disarmed, without shedding one drop of blood! What a glorious retaliation! A victory the more precious, as it was bloodless!

Clarke was well apprised of the dread in which the Virginians were held, on account of the misrepresentations of the English emissaries, and he resolved to make it subserve his purposes. During the night the men patrolled through the town, whooping and yelling in the most approved Indian fashion; and the inhabitants were filled with the greatest terror. M. Rocheblave was taken in his chamber, but very few of his papers captured. It was suspected that they were concealed in the trunks of his wife, which, however, were gallantly permitted to escape examination; whereupon the historian breaks forth: "Better, ten thousand times better it were so, than that the ancient fame of the sons of Virginia should be tarnished by—insult to a female!"

On the next day the troops were withdrawn to the vicinity of the town, but no communication was allowed with the soldiers, nor with the citizens who had been sent for and examined. When the citizens were found conversing with each other, several of the militia officers were suddenly seized and put in irons. Everything was designed to cause the greatest consternation. At length M. Gibault, the priest, and several gentlemen, obtained permission to wait on Col. Clarke. When they entered, their ideas of refinement and rank were shocked at the unseemly appearance of their conquerors. It was some moments before they could speak, and then they had to inquire which was the commander, so completely had all apparent distinctions been annihilated. The priest asked permission for the people to assemble in their church, to take leave of their friends, probably for the last time. This was readily granted, contrary to their expectations, with the assurance that instead of being enemies to their religion, the Americans left every man's religion to himself and his God. When they attempted to hold farther parley, they were abruptly dismissed. The whole population assembled in church with fear and trembling, and the soldiers were studiously kept from molesting their houses and property. Another deputation then came to return thanks for the indulgence that had been granted them; to sue for mercy to their wives and children, and to protest that they were instigated by others, and not by hostility to the Americans, of the grounds of whose quarrel with the English they had not much knowledge. The time had now arrived for the exhibition of the contrast, which Col. Clarke had all along intended to produce, and he thus addressed them:

"Do you mistake us for savages? I am almost certain you do from your language. * * * * My countrymen disdain to make war upon helpless innocence; it was to prevent the horrors of Indian butchery upon our wives and children, that we have taken up arms and penetrated to this remote stronghold of British and Indian barbarity. * * Now that the King of France," said he, "had united his powerful arms with those of America, the war would not continue long; but the inhabitants of Kaskaskia were at liberty to take which

side they pleased. * * * * I am convinced that you have been misinformed and prejudiced against us by British officers, and your friends who are in confinement shall be immediately released.”*

The whole town was now filled with rejoicing; and, as Clarke foresaw, their joy and gratitude were just in proportion to their previous apprehension and dismay. The bells were set to ringing, the crowded church resounded with thanksgivings, and the dominion of Clarke was established in the hearts of the people. Major Bowman, with his company mounted, and several volunteers from Kaskaskia, was next dispatched to take possession, in the name of Virginia, of Cahokia, a town sixty miles higher up the Mississippi. On the 6th of July, he took it by surprise. The terror at first inspired by the presence of the much-dreaded Virginians, was soon converted, by the glowing accounts of the gentlemen from Kaskaskia, into shouts “for freedom and the Americans.”

At the capture of Kaskaskia, one of the principal citizens, M. Cerre, said to be inimical to the Americans, was absent at St. Louis, on his way from Quebec. Clarke resolved to gain him over if possible. He therefore placed a guard over his family and a large store of goods belonging to him. M. Cerre, wishing to return to his family, applied to Clarke for a safe conduct, which, though urged by the strongest recommendation from the Governor of St. Louis and others, he refused; saying, that if M. Cerre was innocent of inciting the Indians against the Americans, he need have no fears. Shortly after, Cerre presented himself and repelled the grave charges that had been made against him, and demanded to be confronted by his accusers, alleging that some who owed him debts might wish to ruin him, in order to get rid of their obligations. When brought before him, his accusers had no evidence against him. Clarke heartily congratulated him upon his acquittal, and told him that if he did not wish to become an American citizen, he might dispose of his property and remove unmolested. But Cerre was so captivated by such humane and generous conduct, that he took the oath of allegiance, and proved a steady and valuable friend to the American cause.

(To be concluded in our next.)

Art. X.—PRODUCTION AND MANUFACTURE OF WOOL.

No. I.

It is our intention to present a series of papers upon this important subject, the material for which we are now engaged in collecting. We solicit in our aid information from those engaged in these branches of industry in different sections of the Union, north, south, and west. The great subject of sheep, in which our government has manifested so much interest, as shown in the mission of Mr. Fleishman to Europe, and the work which that gentleman informs us he has now in preparation for press, will have an important place. We have facts before us to show the advantages which the Southern States possess

* Butler's Kentucky, pp. 56-7.

in this particular, which in due course will be presented. In this case, as in others, some space may intervene between our papers, necessary in the prosecution of researches.

The elaborate statistics of Massachusetts, collected in 1845, and politely furnished us by Hon. Abbot Lawrence, show—

TABLE OF MASSACHUSETTS WOOL MANUFACTURE.

Woolen Mills	178	Value of Jeans	\$ 449,685
Sets Woolen Machinery...	514	“ of Flannel.....	1,284,967
Wool consumed	15,397,448 lbs.	“ of Woolen Yarn....	99,689
Value of Broadcloth.....	\$2,157,392	“ of Woolens generally	561,600
Yards of Cassimer	2,451,458	Capital invested.....	5,604,002
Value of “	\$2,416,818	Males employed.....	3,901
Yards Satinet	3,556,720	Females “	3,471
Value of “	\$1,907,327		

OTHER MANUFACTURES OF WOOL.

Consumed for carpeting,* lbs.	1,786,238	Value of Worsted Goods....	\$392,858
Value of Carpeting.....	\$834,322	Quantity of Wool.....lbs.	617,366
Capital invested.....	488,000	Value of Worsted Yarn....	\$271,708
Persons employed.....	1,034	Capital invested	514,000
		Persons employed.....	846

The statistics of the other States will be found in the census of 1840, since which we know of no general returns.

The object of our present paper will be principally to note the origin and progress of the woolen manufacture among the ancients; reserving its modern discussion to other numbers. We rely mainly upon the authority of a valuable work published by Harper & Brothers last year, which we commended in our last number, and which should have a large circulation.†

The sheep is supposed not to be a native of Europe. In Asia, from the earliest periods, the pastoral life was the main stay of industry. The ancient Scythians tended their herds and flocks. The Persians had abundance of these. The Bible affords us innumerable evidences of the extensive flocks of the Mesopotamians, Syrians, Tyrians, etc. In the war against the Hagarites the Hebrews took 250,000 sheep, and Moses took 675,000 from the Midianites. Similar remarks may be applied to Arabia. Sheep were bred in Egypt, but to a limited extent. “Egyptian wool cannot have been of the least importance as an article of commerce. What was produced must also have been consumed in the country. For, although the chief material for the clothing of the Egyptians was linen, and they were forbidden to be buried in woolen or to use it in the temples, yet Herodotus (ii. 81) states, that on ordinary occasions they wore a garment of white wool over their linen shirt. They also used wool for embroidering. According to Pliny the Egyptian wool was coarse and of a short staple. Tertullian records a saying of the Egyptians, that Mercury invented the spinning of wool in their country.” The Ethiopian sheep were small and hairy like goats, so that their skins were used for clothing. The Lybians were extitled, “abounding in flocks”—πονηλος. The Coraxi, near the Euxine, paid great attention to this industry, and sent their fine wool carpets and shawls

* 150,000 lbs. of cotton only employed in this manufacture.

† Domestic Life and Manufactures of the Ancients, or History of Silk, Cotton, Wool, &c.

to the markets of the Ægean sea. The Circassians of the same neighborhood, at this day, produce beautiful flocks. There is now a nation of the Coraxi whose dress "is made of woollen cloth, and which is admired throughout the whole of Caucasus."

In the classical writers the wool of Miletus is everywhere celebrated for its fineness, and Tertullian declares, "From the beginning the Milesians were employed in shearing sheep, the Seres in spinning the produce of trees, the Tyrians in dyeing, the Phrygians in embroidering, and the Babylonians in weaving." Thrace is called, by Homer, "the mother of flocks." Sheep are supposed to have constituted much of the wealth of Bœotia; Laberius sung of Attic wool:

"No matter whether in soft Attic wool,
Or in rough goats' hair you be clothed," &c.

The Arcadians were celebrated for their love of music and their pure pastoral life. "In Macedonia also the king, though living in a state of so little refinement that his queen *baked the bread for the whole household*, was possessed at an early period of flocks of sheep and goats, together with horses and herds of oxen, which were entrusted to the care of separate officers. We are informed that three Argive brothers, having taken refuge in the upper part of Macedonia bordering upon Illyria, became hired servants to the king, one of them having the custody of the horses, another of the oxen, and a third of the sheep and goats." The Sicilian pastoral life has been sung by Theocritus. "Pliny informs us, that in his time the wool of Apulia was in the highest repute; that throughout the South of Italy the best sheep were bred in the vicinity of Tarentum and Canusium; and that the wool of Tarentum was admired for its tinge of black, and that of Canusium for its fine brown or yellow color. The directions for the management of sheep, given by Varro, Columella, Virgil, and other writers on rural affairs, all tend to show the pains taken by the Romans to improve the breed of sheep, and especially to produce wool of the finest quality." The poet Martial thus handsomely acknowledges the receipt of a rich toga from Parthenius:

"Say, grateful gift of mine ingenious friend,
What happy flock shall to thy fleece pretend?
For thee did herb of famed Phalantus blow,
Where clear Galesus bids his waters flow?
Did thy wool count the streamlets, more than seven,
Of him who slaked the warrior horse of heaven?
Or did Tartessian Guadalquiver lave
Thy matchless wool in his Hesperian wave?
Thou didst not need to taste Amyclæ's bane,
And wouldst have tried Milesian art in vain.
With thee the lily and the privet pale
Compared, and Tibur's whitest ivory fail.
The Spartan swan, the Paphian doves deplore
Their hue, and pearls on Erythrean shore.
But, though the boon leave new-fall'n snows behind,
It is not purer than the donor's mind.
I would prefer no *Babylonian vest*,
Superbly braider'd at a queen's behest;
Nor better pleased should I my limbs behold,
Phryxus, in *webs* of thine Æolian gold.
But O! what laughter will the contrast crown,
My worn lacerna on th' imperial gown!"

The ancient Germans produced but a coarse wool; the same is true of Gaul, which made Juvenal say,

"Some coarse brown cloaks perhaps I chance to get,
Of Gallic fabric, as a fence from wet."

The early Britains, according to Cæsar, had abundance of cattle, as every schoolboy will remember, *pecoris magnus numerus*. We introduce a passage in relation to Spain :

"Of all the countries in Europe, says Mr. Low, Spain has been the longest distinguished for the excellence of its wool. This fine country, more varied in its surface and natural productions than any other region of the like extent in Europe, produces a great variety of breeds of sheep, from the larger animals of the richer plains, to the smaller races of the higher mountains and arid country. Besides the difference produced in the sheep of Spain by varieties of climate and natural productions, the diversity of character in the animals may be supposed to have been increased by the different races introduced into it:—first, from Asia, by the early Phœnician colonies; secondly, from Africa by the Carthaginians, during their brief possession; thirdly, from Italy by the Romans, during their dominion of six hundred years; and fourthly, again from Africa by the Moors, who maintained a footing in the country for nearly eight centuries. The large sheep of the plains have long wool, often colored brown or black. The sheep of the mountains, downs, and arid plains have short wool, of different degrees of fineness, and different colors. The most important of these latter breeds is the merino, now the most esteemed and widely diffused of all the fine-wooled breeds of Europe."

Prescott, in his late important work upon Peru,* informs us that the ancient inhabitants, from the llama and the kindred species of Peruvian sheep, obtained a fleece adapted to the colder climate of the table lands, more estimable than the down of the Canadian beaver, etc. He thus describes the LLAMA :

"Of the four varieties of the Peruvian sheep, the llama, the one most familiarly known, is the least valuable on account of its wool. It is chiefly employed as a beast of burden, for which, although it is somewhat larger than any of the other varieties, its diminutive size and strength would seem to disqualify it. It carries a load of little more than a hundred pounds, and cannot travel above three or four leagues in a day. But all this is compensated by the little care and cost required for its management and its maintenance. It picks up an easy subsistence from the moss and stunted herbage that grow scantily along the withered sides and the steeps of the Cordilleras. The structure of its stomach, like that of the camel, is such as to enable it to dispense with any supply of water for weeks, nay, months together. Its spongy hoof, armed with a claw or pointed talon, to enable it to take secure hold on the ice, never requires to be shod; and the load laid upon its back rests securely in its bed of wool, without the aid of girth or saddle. The llamas move in troops of five hundred or even a thousand, and thus, though each individual carries but little, the aggregate is considerable. The whole caravan

* History of the Conquest of Peru, with a Preliminary View of the Civilization of the Incas. New York. Harper & Brothers. 1847. 2 vols.

travels on at its regular pace, passing the night in the open air, without suffering from the coldest temperature, and marching in perfect order and in obedience to the voice of the driver. It is only when overloaded that the spirited little animal refuses to stir, and neither blows nor caresses can induce him to rise from the ground. He is as sturdy in asserting his rights on this occasion, as he is usually docile and unresisting."

OTHER PERUVIAN SHEEP.

"But the richest store of wool was obtained, not from these domesticated animals, but from the two other species, the *huanacos* and the *vicunas*, which roamed in native freedom over the frozen ranges of the Cordilleras; where not unfrequently they might be seen scaling the snow-covered peaks which no living thing inhabits, save the condor, the huge bird of the Andes, whose broad pinions bear him up in the atmosphere to the height of more than twenty thousand feet above the level of the sea. In these rugged pastures, 'the flock without a fold' find sufficient sustenance in the *ychu*, a species of grass which is found scattered all along the great ridge of the Cordilleras, from the equator to the southern limits of Patagonia. And as these limits define the territory traversed by the Peruvian sheep, which rarely, if ever, venture north of the line, it seems not improbable that this mysterious little plant is so important to their existence, that the absence of it is the principal reason why they have not penetrated to the northern latitudes of Quito and New Grenada."

PERUVIAN WOOL MANUFACTURES.

"But nearly the whole of the sheep, amounting usually to thirty or forty thousand, or even a larger number, after being carefully sheared, were suffered to escape and regain their solitary haunts among the mountains. The wool thus collected was deposited in the royal magazines, whence, in due time, it was dealt out to the people. The coarser quality was worked up into garments for their own use, and the finer for the Inca; for none but an Inca noble could wear the fine fabric of the vicuna.

"The Peruvians showed great skill in the manufacture of different articles for the royal household from this delicate material, which, under the name of *vignonia* wool, is now familiar to the looms of Europe. It was wrought into shawls, robes, and other articles of dress for the monarch, and into carpets, coverlets, and hangings for the imperial palaces and the temples. The cloth was finished on both sides alike; the delicacy of the texture was such as to give it the lustre of silk; and the brilliancy of the dyes excited the admiration and the envy of the European artisan. The Peruvians produced also an article of great strength and durability by mixing the hair of animals with wool; and they were expert in the beautiful feather-work, which they held of less account than the Mexicans from the superior quality of the materials for other fabrics, which they had at their command."

"A similar arrangement prevailed with respect to the different manufactures as to the agricultural products of the country. The flocks of llamas, or Peruvian sheep, were appropriated exclusively to

the Sun and to the Inca. Their number was immense. They were scattered over the different provinces, chiefly in the colder regions of the country, where they were intrusted to the care of experienced shepherds, who conducted them to different pastures according to the change of season. A large number was every year sent to the capital for the consumption of the court, and for the religious festival and sacrifices. But these were only the males, as no female was allowed to be killed. The regulations for the care and breeding of these flocks were prescribed with the greatest minuteness, and with a sagacity which excited the admiration of the Spaniards, who were familiar with the management of the great migratory flocks of merinos in their own country.

“At the appointed season, they were all sheared, and the wool was deposited in the public magazines. It was then dealt out to each family in such quantities as sufficed for its wants, and was consigned to the female part of the household, who were well instructed in the business of spinning and weaving. When this labor was accomplished, and the family was provided with a coarse but warm covering, suited to the cold climate of the mountains—for, in the lower country, cotton, furnished in like manner by the crown, took the place, to a certain extent, of wool—the people were required to labor for the Inca. The quantity of the cloth needed, as well as the peculiar kind and quality of the fabric, was first determined at Cuzco. The work was then apportioned among the different provinces. Officers, appointed for the purpose, superintended the distribution of the wool, so that the manufacture of the different articles should be intrusted to the most competent hands. They did not leave the matter here, but entered the dwellings, from time to time, and saw that the work was faithfully executed. This domestic inquisition was not confined to the labors for the Inca. It included, also, those for the several families; and care was taken that each household should employ the materials furnished for its own use in the manner that was intended, so that no one should be unprovided with necessary apparel. In this domestic labor all the female part of the establishment was expected to join. Occupation was found for all, from the child five years old to the aged matron not too infirm to hold a distaff. No one, at least none but the decrepit and sick, was allowed to eat the bread of idleness in Peru. Idleness was a crime in the eye of the law, and, as such, severely punished; while industry was publicly commended and stimulated by rewards.”

We conclude with a description of a woollen mill and the woollen manufacture, from Mr. Miles' "History of Lowell," 1846.

A LOWELL WOOLEN MILL.

But one establishment in this city is appropriated to the manufacture of woollen cloth. This is the Middlesex company. Their wool comes from the States of Vermont, New Hampshire, New York, Ohio, Pennsylvania, Illinois, Missouri, and some, recently, from the Territory of Wisconsin. The quantity which is here annually manufactured equals the produce of four hundred thousand sheep. Received into the company's store-room, it is first assorted into eleven different kinds, according to degrees of fineness. The wool is then dyed; after which it passes through the picker. From the picker it is taken successively to the carding, spinning, dressing, and weaving rooms. The cloth is then "buried," as it is called, by which is meant a careful removal of all imperfect threads; and the

next processes are those of scouring and fulling. At this stage of the manufacture, the cloth is applied to the "gig," or napping machine, by which the nap is raised; after which it is shorn, passing through the shearing machine from ten to sixteen times. The fine gloss of the cloth is then put upon it by steam, and after another careful examination by the "linters," it is marked, pressed, measured, done up in papers, boxed and sent to Boston.

The large mill of this company is seven stories high, one hundred and fifty-eight feet long, and forty-six feet wide. Another, of nearly the same size is soon to be erected. The quantity of broad-cloth and cassimers annually made, is about one hundred and fourteen thousand yards of the former, and six hundred and twenty thousand yards of the latter. Some of the yearly expenses attending this are as follows: logwood, six thousand dollars; indigo, twenty-two thousand dollars; glue, five thousand dollars; soap, eight thousand dollars; packing boxes, one thousand six hundred dollars; wrapping paper, one thousand dollars. Sales of cloth have amounted to eight hundred thousand dollars per year. The whole importation of cassimers from England to the United States, in 1844, was seven thousand pieces; while this company alone manufactured, in that year, more than twenty thousand pieces.

Art. XI.—OPERATIONS OF THE AMERICAN GOVERNMENT SINCE 1789.

**TREASURY DEPARTMENT IN REGISTER'S OFFICE,
WASHINGTON CITY, September 7, 1847.**

J. D. B. DE Bow, Esq.—The value of your Commercial Review to our merchants is universally conceded, and if the article herewith transmitted should enhance the interest of its columns, I shall be highly gratified.

You have no doubt seen by the journals of the day, that there are now in the office of the Register of the Treasury, Hon. Daniel Graham, three most important compilations, exhibiting the entire fiscal operations of the government from 1789 to the present period. The first volume embraces the expenditures, civil, miscellaneous, diplomatic, military, naval, and public debt.

Some idea may be formed of the magnitude of this work when we find that there are more than two thousand captions under which the items have to be classified.

I inclose an abstract containing a few topics of local interest to your readers of the Crescent City.

EXPENDITURES ON THE NEW ORLEANS CUSTOM-HOUSE EDIFICE.

In 1807-8-9	\$19,200 00
In 1820	80,081 33
In 1840	5,500 00
	\$104,781 33

MINT AT NEW ORLEANS.

Buildings, machinery, contingent expenses, and machinist, &c...	\$507,463 56
Officers and clerks	118,860 51
Laborers	152,306 79
	\$778,630 78

MARINE HOSPITAL AT MCDONOUGH.

Expenditures thereon	\$68,121 07
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380 OPERATIONS OF THE AMERICAN GOVERNMENT SINCE 1789.

I append to these topics of local interest, a statement of the mileage allowed to members of Congress, at different periods, and in the aggregate :

First Congress, ending 3d March, 1790.....	\$335,903 97
Fifteenth " " " 1819.....	626,942 50
Twenty-ninth do. " " 1847.....	1,309,437 00

Aggregate mileage of members of Congress from the First to the Twenty-ninth Sessions, both inclusive, \$19,100,445 48.

The second volume embraces the receipts and expenditures on account of public lands, under which head are comprehended the purchases of Florida and Louisiana. The condition of every land office in the country is therein annually set forth, and from the accompanying table it will be seen that the opinion generally current as to our public land system, is very erroneous. The net profits exceed \$39,000,000, as shown by the following table :

LAND OFFICE, NEW ORLEANS.

	Receipts.	Expenditures.	Net Receipts.	Rate per cent. of exp. on amt. of receipts.	Excess of exp. over receipts.
1821.....	\$ 48,200 00	\$ 733 46	\$47,466 54	1.52	.....
1822.....	100,132 03	1,904 67	98,227 36	1.90	.....
1823.....	432 25	1,783 93	.....	412.94	\$1,351 68
1824.....	.....	1,000 00	.....	.....	1,000 00
1825.....	500 00	831 31	.....	166.26	331 31
1826.....	746 37	1,514 92	.....	203.07	768 55
1827.....	134,451 00	4,316 93	130,134 07	3.21	.....
1828.....	.....	2,931 79	.....	.....	2,931 79
1829.....	400 00	1,008 00	.....	252.	608 00
1830.....	9,101 37	1,823 09	7,278 28	20.03	.....
1831.....	13,910 00	2,519 73	11,390 27	18.11	.....
1832.....	1,552 75	1,076 58	476 17	69.36	.....

RECEIPTS AND EXPENDITURES OF PUBLIC LANDS, FROM MARCH 4, 1789, TO JUNE 30, 1845.

Receipts.

Receipts during said period.....\$127,144,330 67

Expenditures.

Pertaining to General Land Office	\$1,877,574 24
" to Surveys	3,941,121 28
On account of private land claims	422,932 64
For sundry purposes pertaining to lands	1,373,726 40
For surveyors general, repayments and patents	1,174,133 58
Miscellaneous	51,690 34
Relating to treaties for Indian lands	44,599,902 15
Under the Convention with France of the 30th April, 1803, &c., for Louisiana	15,000,000 00
For interest on stock thereupon issued	8,529,353 43
Under treaty with Spain of 20th February, 1819, for the Floridas	5,000,000 00
For interest of stock thereupon issued	1,489,768 66
Amount of 3 and 5 per cents., estimated upon the proceeds of public lands within their borders, and paid to the States for aiding them in internal improvements, in consideration of the U. S. not having paid taxes on the public lands, &c..	3,361,847 63
Amount of proceeds of public lands, paid to the several States and Territories, under the Act 4th September, 1841	543,858 79—87,965,909 14
Net proceeds	\$39,878,411 53

The third volume embraces the receipts and expenditures of the Custom-houses, and exhibits their entire operation singly and collectively.

As illustrations, I transmit two statements—one exhibiting the operations of the New Orleans Custom-house, in three different periods, viz.: the first year, the last year, and for the entire period of its existence up to the close of the fiscal year 1845-6.

OPERATIONS OF THE N. O. CUSTOM-HOUSE DURING THE YEAR 1801.

<i>Receipts.</i>	
Duties on merchandise	\$15,293 87
“ on tonnage	98 26—15,392 13
<i>Disbursements.</i>	
Total expenses of collection	839 77
Net revenue	\$14,552 36

OPERATIONS N. O. CUSTOM-HOUSE FROM JULY 1, 1845, TO JUNE 30, 1846.

<i>Receipts.</i>	
Duties on merchandise	\$1,360,481 32
“ on tonnage	6,756 82
Light money	4,890 94
Fines, penalties and forfeitures	250 00
Unclaimed merchandise	4,145 27
Marine Hospital money	8,219 50—1,384,743 85
<i>Disbursements.</i>	
Debentures issued, and drawback on foreign merchandise exported	215,505 84
Expenses attending prosecutions	2,451 48
Duties refunded on all other merchandise	825 78
Total expenses of collection	150,986 13— 369,760 23
Net revenue	\$1,014,974 62

OPERATIONS OF N. O. CUSTOM-HOUSE FROM 1801 TO JUNE 30, 1847, BOTH INCLUSIVE.

<i>Receipts.</i>	
Duties on merchandise	\$47,132,567 03
“ on Mediterranean fund	217,525 32
“ on tonnage	668,867 05
Passports and clearances	20,416 00
Light money	246,348 39
Fines, penalties, and forfeitures	182,494 31
Surplus of official emoluments	45,279 19
Unclaimed merchandise	10,076 95
Marine Hospital money	131,300 81
Amount received from captors, being net proceeds of prize vessels and goods	3,495 37—48,658,370 42
<i>Disbursements.</i>	
Debentures issued, and drawbacks on foreign merchandise exported	11,688,664 81
Drawback on Mediterranean fund	94,973 39
“ on domestic refined sugar exported	138,738 16
Bounties on salted provisions and fish	944 55
Expenses attending prosecutions	40,793 90
Total tonnage and light money	35,213 86
All other duties refunded	957,584 33
Expenses of collection	2,802,867 94—15,689,800 94
Net revenue	\$32,968,569 48

The other statement comprehends the entire revenue system, and presents in detail all the operations of the Custom-houses of the Union, and exhibits the true net revenue derived from them.

Statement of the Receipts, Expenditures, Net Revenue, and excess of expenses of Collection of all the Custom-houses in the Union, from March 4, 1798, to June 30, 1846.

<i>Receipts.</i>	
Duties on merchandise	\$1,190,326,705 08
“ on Mediterranean fund	8,703,530 30
“ on tonnage	7,121,531 92
“ on passports and clearances	457,023 70
“ on light money	1,222,348 93
Fines, penalties, and forfeitures	1,949,323 19
Unclaimed merchandise	153,979 81
Interest received on treasury notes	90,346 01
Custom charges on British vessels	1,932 95
Sales of revenue cutters	10,444 17
Debentures over issued	221 63
Surplus of official emoluments	303,242 48
Expenses on collection of the revenue, and allowances to vessels employed in the fisheries overpaid	937 49
Marine hospital money	2,549,460 95
Amount received from captors, being net proceeds of prize vessels and goods	218,822 14
Amount for lands set off to the U. S. on account of bonds, &c.	5,101 42—1,143,114,952 17
<i>Expenditures.</i>	
Debenture issued, and drawback on foreign merchandise exported	193,106,577 56
Drawback on Mediterranean fund	1,041,262 98
“ on domestic distilled spirits exp...	1,154,926 41
“ “ “ refined sugar export .	2,862,795 70
“ “ “ manuf. snuff exported	20,547 26
Allowances to vessels employed in the fisheries	8,634,175 96
Bounty on salt provisions and pickled fish...	721,532 48
Expenses attending prosecutions	644 558 43
Interest paid on treasury notes	45,890 42
Duties refunded on unclaimed merchandise, insolvencies, &c.	5,905 21
Duties refunded on Mediterranean fund	46 08
“ “ under the Act to remit duties on goods destroyed by fire in New York.	176,307 75
Duties refunded on railroad iron	3,324,047 17
“ “ on all other articles	10,219,864 30
“ “ on total tonnage and light money	110,261 02
Total expenses of collection	46,527,825 78— 268,594,924 51
Net revenue	\$874,520,127 66
Net revenue	\$882,694,038 05
Deduct excess of expenses of collection	8,373,910 39
True amount of net revenue	\$874,520,127 66

It is but justice to state that these important compilations were projected and commenced by the Hon. Ransom H. Gillett, during his administration as Register of the Treasury. He has since been transferred to the Bureau of the Solicitor of the Treasury, wherein he has already manifested his genius for order.

His successor to the Registry of the Treasury, the Hon. Daniel

Graham, is carrying out this great enterprise, and it will, it is expected, be published under the direction of the 30th Congress.

The Secretary of the Treasury, Hon. Robert J. Walker, warmly approves the measure, and has found the volumes of essential service in his investigations on the subject of the public revenue.

Heretofore much time was spent in ascertaining results which can, from these works, be ascertained in a few minutes; and calls of Congress requiring, formerly, weeks to answer, can be responded to in an hour.

Hoping that these statistics may be an acceptable contribution to your excellent periodical, I am yours truly,

SAMUEL YORKE AT LEE.

Art. XII.—SUGAR CULTURE AND MANUFACTURE OF LOUISIANA AND WEST INDIES.

In answer to a letter written by us, M. Valcour Aimé, an intelligent and enterprising planter of St. James, Louisiana, thus replies to our interrogatories. His experience and character as a sugar planter give great weight to his observations.—Ed.

SIR—Although I do not suppose that the information I can give you, on the culture and manufacture of sugar, can add much to the value of the work you are preparing, I cheerfully proceed to answer your queries.

I do not know much more now about refining sugar than I did when I sent to the Agricultural Society the statement to which you allude; and I am even so much convinced that I have a good deal to learn on the subject, that I have sent to France in March last, a young man who had, under my tuition, become a pretty good boiler, to take farther lessons from a refiner living near St. Quentin. He has orders also to go to England, and to visit, before he returns, the refineries of our northern cities. This will cost me between \$1500 and \$2000. Whether it will be money profitably laid out time alone can show. I speak of this circumstance in order to show how much, in my opinion, the quality of the refined sugar depends on the manner in which it is boiled, and the quantity of bone-black used. The quantity, in the raw sugar employed, is of course to be taken into consideration; for with the same quantity of black, brown Havana, at 5½ cannot be expected to make as fine a loaf as the Havana which is sold at 7 cts.; but the Havana sugar of the latter quality makes rather too good an article for this market. I can sell a hundred pounds of sugar worth 9½ to 10 cts. against ten pounds at 11 to 12½ cts.

I repeat my statement to the Agricultural Society, that every planter, with sufficient means, who feels that he can give to the apparatus of Derosne or Rillieux the close attention which they require, will find it to his advantage to have one put up. His additional trouble and expenses will be fully compensated by the economy in fuel, in the quality of his sugar and the augmentation of the quantity produced, which can, I think, be fairly valued at almost 15 per cent. as far as I can judge from my own experience; I would, however, advise no

planter to refine the sugars obtained from these apparatus—any how, the first year. During my last crop, sugars boiled in my apparatus, drained in moulds without being liquored, and put up in hogsheads, when sufficiently dry, were sold at $7\frac{1}{2}$ cts., exclusive of molasses; while the balance of the crop, when refined, averaged about $7\frac{1}{2}$ cts., including the molasses. I am preparing for my ensuing crop a test for this experience, on a larger scale. I intend to boil about one-half of my crop into brown sugar, and to refine the balance. In filling up so many hundred moulds of the one, and so many of the other, I can easily ascertain which is the more profitable. But, be that as it may, it can certainly be said that the manufacture of brown sugar, worth $7\frac{1}{2}$ cts., when the produce by the usual process was selling at 5 or $5\frac{1}{2}$ cts., ought to be considered as a grand business.

As to the culture of the cane in the field, I have nothing new to notice. An actual progress has been made of late years in the management of our sugar plantations; but it is due to a series of small and gradual improvements, which would be tedious to detail. The most prominent one, however, consists in placing the cane-rows at a much greater distance from one another than was formerly done. By that means the planter can now do with the plow about three-fourths of the weeding for which the hoe alone was heretofore put in requisition. The cane being allowed more sun and air, can ripen and produce pretty good sugar in new soils, when, if planted as in time past, it would yield nothing but molasses. For old fields, the distance of the rows also permits the burying, as manure, the top canes and leaves, the removal of which, when they could not be sufficiently burnt in the row, was sometimes a source of annoyance. Some planters have lately used sub-soil plowing, but this, to state frankly my opinion on the subject, I consider as a kind of humbug. Their principle is to break the underground, so as to offer a passage for water, and to loosen the soil, in order to permit the roots of the canes to spread. I have always found that our soil, which is not generally tenacious or retentive, can be easily made to carry off on the surface the rain-water, by an old way of hilling the canes, which necessarily leaves a very deep furrow, and regular cross ditches at every arpent, or arpent and a half, with additional ones, whenever the land is uneven, to carry the rain-water to the main in long ditches. In a cane-field which has been in culture for a number of years, the ground, to the depth of 18 or 20 inches, is literally filled with cane-roots, as thick as the hair in the head. How can a plow, by going to the depth of twelve inches, procure new soil for these roots? It is certainly necessary to loosen the ground, even if it was only to prevent it being cracked, in very dry springs and summers; but I think loosening it to the depth of six or seven inches is all that is necessary for all useful purposes.

The plant canes of this year seem as good as they were in 1844, which was a very productive year. But in '44, the ratoons produced as much as the plant-cane, if not more; it was so, at least, on my plantation; and they are not as promising this year. My experience in the last twenty-five years has, however, taught me that there is no telling what the cane will actually yield before it is brought to the mill. Prime canes will sometimes give, on an average, two hogsheads

and a half to the arpent, while others, looking just as good in every respect, will yield in another year only a hogshhead and a half. There is no criterion to determine, beforehand, the richness in the quantity of the juice to be obtained.

Having not seen Mr. Champomier's last statement, I cannot say whether it is correct or not as to this parish.

I know nothing personally of the culture of the cane in the West India islands, except Cuba, where I have traveled for the purpose of examining some new improvements in the manufacture of sugar. In the parts of the island which have long been in a state of cultivation, on the west side, and in the middle districts, round Guines, their lands are mostly worn out, and even if they now try to renew them, as some think of doing, with cow peas, we can still make more sugar than they do. I met with some plows round Matanzas, and they are, I suppose, used to some extent in the old districts; they cannot, however, do much with them, on account of the stiffness of their soil, and the quantity of stones. Some of the planters about Guines have given up their lands, and removed with their forces to the Haneaw district, a large valley which was not very long ago entirely wooded, and where there are now hundreds of planters. I have seen in that district, at M. Diago's, the ratoons of canes which had been put in the ground seventeen years before. They were certainly thick enough to be kept for another year, and perhaps longer. He went on increasing his plantation by putting in the ground every year, twenty-five arpents more. Their sugar-houses and other improvements are generally very much behind ours, but they take what time they please to manufacture, as they have scarcely anything else to do. Their weeding is performed by cutting once a year the weeds which grow through the dry cane-leaves, and that is done with the cane knife, the only instrument used on a plantation. They have no plows, no hoes, and no spades. In 1844 I sent twenty-four spades to Mr. Diago, and there were a few ditches made in that year.

In spite of the natural advantages which they enjoy, I think we make almost as much sugar to the hand as they do in the new districts. This is owing to the more advanced stage of our agriculture, and the superiority of our American negroes over their newly-imported African slaves. But although the quantity of manufactured sugar may be nearly the same, the yearly income of the Cuba planter is very different from that of the Louisianian; for him the expenses of a plantation are next to nothing, and I need not tell you what ours are. There are in the island of Cuba several plantations where sugar is manufactured by means of Derosne's apparatus, imported from France. Believing, after a careful examination, that they might be advantageously used here, I ordered one, with some few specifications, at the Novelty Iron Works, New York. It was put in operation last year on my plantation, and you are already aware of the result.

It is extremely difficult to answer with any accuracy your query about the cost of a plantation. A plantation for three hundred hogshheads of sugar may vary in cost from seventy-five thousand to one hundred thousand dollars, according to the position, the quality of the land, the kind of improvements, &c., &c. There is but little differ-

ence between the expenses of putting up a substantial sugar-house, with steam-engine complete, for three or six hundred hogsheads of sugar; with the exception of the extent of the draining-houses, the cost is about the same, and may be valued at \$15,000. On the other hand, by employing a year to grow the plant canes, and making temporary alterations in the buildings already in existence, and using creole horses to grind his canes, a cotton plantation may be converted into a sugar estate of over one hundred hogsheads at an actual cost which may not be more than \$1,500. I have often heard of small, but industrious farmers, who, by making most of the improvements with their own hands, and grinding their canes with creole horses, have succeeded in making from ten to fifteen hogsheads in their cotton farms, with an outlay of five hundred dollars. The usual yield in sugar plantations is from five to eight hogsheads to the hand—the result must necessarily vary on account of the quality of the land and the industry or capacity of the planter. Some small planters are said to have made as much as ten hogsheads to the hand, but in those extraordinary yields, I am inclined to think that the slaves only have been taken into consideration, while the work done by the planter himself and his children, has been overlooked. Last year the planters in the neighborhood of the city and below, hardly averaged four hogsheads. In this part of the State the average was about five.

You will easily ascertain the cost of Rillieux' apparatus in New Orleans from Mr. Thompson or Mr. E. Barthe.

I must conclude this desultory letter. If you are tired by its length and tediousness, you must lay a part of the blame on your own shoulders, for a volume might be written in answer to your queries. Your obedient servant,

VALCOUR AIME,

Art. XIII.—THE AMERICAN LAKES:

THEIR COMMERCIAL IMPORTANCE, NAVIGATION, ETC.

THERE are four great sections of our republic destined to present to the world the most formidable front, whether regarded in point of population or commerce—the Atlantic frontier, the Gulf Coasts, the Mississippi Valley, and the Northern Lakes. We have published papers upon each of these interesting regions, and given their full statistics, with exception of the last. This we shall now touch in a short paper, with the promise of a more complete one, as soon as the important committee of the Chicago Convention—Mr. Spencer of New York, chairman, we believe—which has been intrusted with the subject, shall report.

Last year, James L. Barton, Esq., addressed a letter to Hon. Robert McClelland, which embodies many particulars, and furnishes the facts for the following paper.

Previous to 1832, the chief and only trade west of Detroit, was the supply of Indian tribes with provisions and goods, and returns of furs, etc., and for military service. The Black Hawk war, this year, attracted attention to the fertility of the country.

The steamer *Walk-in-the-Water* began her annual trips from Detroit to Macinac, in the service of the Fur Company, in 1819. The voyage which has become now a thing of no sort of note, was regarded among the marvelous at the time. Indeed, the *New York "Mercantile Advertiser"* is said to have announced it thus :

"The swift steamboat *Walk-in-the-Water* [her great speed may be judged of when it required ten days to make her trip to and from Buffalo to Detroit, and charged eighteen dollars for cabin fare!] is intended to make a voyage early in the summer from Buffalo on Lake Erie to Michilimackinac on Lake Huron, for the conveyance of company. The trip has so near a resemblance to the famous Argonautic expedition in the heroic ages of Greece that expectation is quite alive on the subject. Many of our most distinguished citizens are said to have already engaged their passage for this splendid adventure."

In 1826, Lake Michigan's waters were first opened to steam for pleasure excursions to Green Bay. Steamers chartered by government for military purposes made a first appearance at Chicago in 1832.

In 1833, there were 11 steamboats employed on the lakes, costing \$360,000, and carrying 61,485 passengers. The number of boats in the Association service in 1833, had increased to 18, costing \$600,000. In 1839, so great had become the trade to Chicago and ports west of Detroit, that a regular line of light boats from 350 to 650 tons was constantly employed from Buffalo.

In 1840, the number of boats on the lakes was 48, from 150 to 700 tons; cost of construction, \$2,200,000. Business done to the west of Detroit by steamers, \$2,200,000.

In 1841, from the increased quantity of agricultural productions brought from the shores of Lake Michigan this season, also a good many tons of lead and shot from the mines in that section of country, now for the first time in any considerable quantity, seeking a market by the lake route—and the very large increase of fashionable travel from New Orleans to the Northern States, during the hot season of the summer months—this route being preferred in consequence of its being more speedy, less expensive, more healthy than the lower route, and affording the traveler a view of the magnificent scenery of the islands and shores of the great lakes—I estimate that three-fourths of the business done by the Chicago and Green Bay boats this year is made from legitimate business west of Detroit, and amounts to \$226,352 54.

Mr. Barton estimated in 1841, that there were 250 sail vessels owned on Lake Erie from 30 to 250 tons; cost each, \$1,000 to \$14,000—aggregate, \$1,250,000; business done by them, \$750,000.

Buffalo having become the great entrepot of north-western products seeking eastern markets, it is a good point of comparison and observation. Here the vast proportion of lake commerce centres. To have some notion of the value of this commerce, it is only necessary to inspect the records of the Erie canal for the last few years. Of course the notion will be an inadequate one, since large quantities of produce pass from that place *via* Erie, through the Pennsylvania canal; also from Cleveland and Toledo through the Ohio and Indiana canals, and Erie and Kalamazoo railroad; from Monroe and Detroit, by the Michigan, Southern and Central railroads; to Canadian markets, through the Welland canal; to New York, *via* Oswego canal, &c., not to speak of the great consumption of Buffalo itself, a city of

40,000 inhabitants perhaps, and ever entertaining crowds of emigrants on their way westward.

COMMERCE OF BUFFALO, 1843—45.

Kind and amount of Property, first entered or cleared on the Canal from Buffalo, bound toward tide-water.

	1843.	1844.	1845.
Fur and Peltry.....lbs.	545,097	361,446	483,796
Boards and Scantling.....feet	19,932,069	15,502,450	8,661,361
Shingles.....M.	554	262	221
Timber.....cubic feet	11,440	8,512	1,564
Staves.....staves	89,174,110	61,515,236	34,747,261
Wood.....cords	980	409	917
Ashes.....bbls.	38,417	37,365	38,261
Pork.....bbls.	28,235	52,417	48,556
Beef.....bbls.	34,084	33,348	26,666
Bacon*.....lbs.	1,218,811		
Cheese.....lbs.	2,759,928	2,304,827	2,901,778
Butter.....lbs.	3,397,690	6,281,577	7,965,628
Lard*.....lbs.	2,852,441		
Wool.....lbs.	3,441,317	2,643,148	1,949,524
Hides.....lbs.	769,861	376,329	
Flour.....bbls.	721,891	851,180	880,868
Wheat.....bushels	1,354,996	1,786,104	1,699,724
Rye.....bushels	903	2,549	2,832
Corn.....bushels	33,094	114,529	207,806
Barley.....bushels		55	11
Other grain.....bushels	9,040	8,231	22,096
Bread and Ship Stuffs.....bushels	3,266	15,045	9,911
Peas and Beans.....bushels	1,587	927	2,179
Potatoes.....bushels	3,455	102	65
Dried Fruit.....lbs.	7,837	193,272	144,219
Tobacco.....lbs.	608,349	210,152	1,779,499
Clover and Grass Seeds.....lbs.	2,487,336	3,248,488	2,660,794
Flax Seed.....lbs.	184,563	126,482	787,669
Hops.....lbs.	4,436	22,030	23,736
Domestic Spirits.....gallons	272,336	69,352	198,828
Leather.....lbs.	1,090,548	362,459	108,900
Furniture.....lbs.	1,254,764	900,990	594,574
Bar and Pig Lead.....lbs.	345,387	126,158	1,581,334
Pig Iron.....lbs.	161,518	56,165	16,400
Iron Ware.....lbs.	33,779	77,430	87,759
Domestic Woolens.....lbs.	23,143		3,929
Domestic Cottons.....lbs.	1,213		
Merchandise.....lbs.	295,185	224,123	167,309
Stone, Lime and Clay.....lbs.	11,804,950	945,785	3,186,483
Gypsum.....lbs.	1,594		1,669
Mineral Coal.....lbs.	1,954,850	15,731	2,000
Sundries.....lbs.	6,844,395	6,798,227	5,303,882

Kind and Quantity of Property received at Buffalo, via the Canal.

	1843.	1844.	1845.
Furs and Peltry.....lbs.	14,862	14,872	31,731
Boards and Scantling.....feet	3,140,959	2,822,406	908,833
Shingles.....M.			7
Timber.....cubic feet	84,344	109,499	45,162
Staves.....lbs.	137,580	96,325	151,480
Wood.....cords	13,025	14,440	12,428
Ashes.....bbls.	4		
Pork.....bbls.	43		5
Cheese.....lbs.	7,258	4,709	9,930
Butter.....lbs.	7,565	5,340	6,878

* Previous to 1845 no distinction was made between pork and bacon, or between butter and lard.

	1845.	1844.	1843.
Lard	300	.....	.....
Wool	14,913	5,838	166
Hides	319,272	298,222	.....
Flour	3,310	2,366	2,275
Wheat	271	11,072	7,508
Rye	3	.....	.....
Corn .....	.....	.....	2,424
Barley	11,013	4,967	17
Other Grain	10,564	.....	1,000
Bread and Ship Stuffs	45,354	44,433	85,524
Peas and Beans	367	6	32
Potatoes	1,706	30	180
Dried Fruit	807,599	22,495	25,693
Cotton*	50,914	45,216	.....
Tobacco	120,364	61,052	166,072
Clover and Grass Seed	11,558	6,870	2,428
Hops	35,085	12,183	19,704
Domestic Spirits	17,840	4,992	4,775
Leather	2,081	2,400	470
Furniture	9,491,372	8,838,948	7,936,053
Pig Iron	110,886	861,880	747,978
Iron Ware	2,813,046	2,343,585	1,829,550
Domestic Cottons .....	.....	.....	1,205
Salt	582,694	780,492	721,224
Merchandise	100,893,426	93,678,706	88,296,036
Stone, Lime and Clay	37,134,457	22,438,420	7,717,204
Gypsum	493,179	149,612	66,142
Mineral Coal	5,222,991	5,671,061	4,023,191
Sundries	6,576,203	3,770,162	1,718,259

In the first six months of 1846 there were received at Buffalo—

	1846.	Incr. over 6 mos. '45.	1846.	Incr. over 6 mos. '45.
Flour	563,312	317,657	Bacon	659,853
Wheat	696,200	289,569	Lard	616,511
Corn	421,475	406,967	Butter	598,752
Oats	98,607	97,607	Tobacco	1,034,810
Pork	41,245	19,918	Cotton	95,265
Beef	23,953	9,940		

In 1845, there were on lakes above Niagara Falls—

Steamboats	52	20,500 tons.
Propellers	8	2,500 "
Brigs	50	11,000 "
Schooners	270	42,000 "

Total.....380.....76,000 "

costing in their construction, \$4,600,000.

On Lake Ontario there were 8 propellers, 7 steamers. The steamers on the lakes are of almost double the magnitude of those chiefly employed in 1841. In 1835, Ohio, the only exporting State on the lakes, sent through the Erie canal 86,233 barrels flour, 98,071 bushels wheat, 6,562 barrels provisions; in 1845, Ohio and other States sent by the same channel 717,466 barrels flour, 1,354,990 bushels wheat, 68,000 barrels provisions!

In speaking of the character of lake navigation, Mr. Barton remarks, "Take this whole fleet, in number over 500, of steamboats, steam propellers, brigs and schooners—for beauty of model, taste in rig, finish and furnishing, strength and firmness of construction, capacity for business, rapidity of movement, superior care and skill

* No cotton factory in Buffalo in 1843.

with which they are navigated, cannot be surpassed, if it can be equaled, on any waters in the world—ocean or inland. The storms and tempests on these lakes are as violent as on the Atlantic, and the danger of navigating them is known and acknowledged, by those who have tried both, to be equally as great, if not greater. Hence the superior character of the vessels employed upon them."

The following is a rough estimate of the value of lake commerce: "The amount, as shown by the tables appended hereto, and what is done from the extensive mills at Black Rock, which joins this city, in 1845, by an estimate made by the Canal Board of this State, from a system long adopted, and from experience found to give very near the true amount, is \$28,000,000; add the commerce to and from this city, which never reaches the canal, and it will increase the sum \$5,000,000 more: which amount is farther to be increased by all the business delivered on and taken from the lakes by the various other canals and railroads named in this communication; and the very large amount of what may be termed intermediate commerce between different ports on the lakes, which I put with great confidence at an equal amount with that done through Buffalo. And to all this must be added the amount done on Lake Ontario, which I place at \$15,000,000, and I arrive without the fear of being refuted at an amount of \$81,000,000, without including one dollar of the immense sums of money carried over these lakes."

Two hundred thousand persons are supposed, independently of crews, to have crossed the Upper Lakes in 1845, besides fifty thousand on Lake Ontario.

From the conclusion of the paper, we extract this passage:

"The commerce of these great lakes is of the highest importance to this Union, whether regarded in a commercial or national point of view.

"Commercially, as binding together by the strong ligaments of mutual interest and benefits a very large number of the States, who are thereby enabled to exchange their varied commodities of trade, one with the other, and with all; while each revolving year adds a new and stronger link to the bright chain of friendship and interest, which indissolubly connects them together. Nationally, as being an invaluable nursery and school for the creation of seamen, as well as furnishing the government with the cheapest, most prompt and efficient means of defense to an extended frontier. Only give the hardy navigators of these Northern and Western Lakes, channels of communication deep enough to swim their ships in, and harbors to protect them from tempests and storms, and government will always have at hand on this frontier, the ready means to repel insult and aggression, come when and from where it may."

COMMERCE OF AMERICAN CITIES.

THE commercial year, which closed on the 1st of September last, was one of the most remarkable and prosperous in the history of our country. From Maine to Mexico, from the Atlantic to the remotest borders of western civilization, the same interminable progress, the same unexampled prosperity, is to be marked. We shall devote a few pages to the examination of these results. Let us begin with

1.—NEW ORLEANS.

This extraordinary city, which it has pleased God, in all its fortunes and advances, to visit with the most fearful and desolating scourge in the summer through which we have but now passed, preserves its character. We have, over and over, dwelt in our pages, from the first number of our Review to the present, upon its population, its wealth, its resources, its advances, its prospects, &c. The reader, by consulting all of these papers, will obtain a mass of information of incalculable importance, not only upon this mart, but upon all the South-west and West. We have been lavish in material here. At this time we can only give the results of the past year, in order to have the records complete to date, and not to consume our pages by publishing any matter over twice. The chart of the city's commerce, which we published in the December number, 1846, had but a small circulation, few copies only having been printed, and our circulation has doubled since then. It will be necessary, on this account, to draw upon some of the tables contained in it in order to be complete. They were furnished us through the courtesy of our neighbors of the PRICE CURRENT, the best publication of the kind in the world.

EXPORTS OF TOBACCO FROM NEW ORLEANS TO 31ST AUGUST.

WHETHER EXPORTED.	1846-47.	1845-46.	1844-45.	1843-44.	1842-43.	1841-42.	1840-41.	1839-40.	1838-39.	1837-38.
Liverpool.....	2,374	8,976	4,947	8,806	6,789	6,990	5,282	3,927	4,115	2,683
London.....	5,173	12,889	6,475	8,284	9,651	7,212	8,792	4,320	2,725	3,579
Glasgow and Greenock.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37
Cowes, Falmouth, &c.....	1,148	2,641	1,131	4,424	10,798	6,827	6,681	892	871	2,685
Cork, Belfast, &c.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Havre.....	1,159	2,215	3,514	4,946	4,648	4,037	4,224	3,655	1,455	2,989
Bordeaux.....	242	1,067	1,565	1,196	2,332	1,904	814	1,107	.....	504
Marseilles.....	2,098	1,006	3,934	5,102	4,665	1,833	1,774	1,944	915	1,516
Nantz, Cotte, and Rouen.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amsterdam.....	.....	461	50	3,775	2,700	1,138	.....	.....	224	.....
Rotterdam and Ghent.....	868	1,104	1,014	917	2,933	1,682	.....	.....	.....	.....
Bremen.....	4,446	6,328	12,012	6,602	7,888	8,997	4,012	2,464	1,366	1,500
Antwerp, &c.....	1,852	4,284	3,862	3,179	5,657	3,690	1,219	1,090	.....	.....
Hamburg.....	403	191	798	3,908	1,477	3,401	1,064	1,466	.....	206
Gottenburg.....	949	943	808	734	963	946	1,559	745	839	576
Spain and Gibraltar.....	11,795	9,843	6,749	10,681	4,496	7,204	4,142	3,843	3,400	1,542
Havana, Mexico, &c.....	.....	.....	903	1,601	1,063	951	1,020	1,013	818	725
Genoa, Trieste, &c.....	5,046	2,876	3,001	1,556	1,760	650	.....	44	598	563
China.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other foreign ports.....	1,008	298	794	1,177	917	516	867	343	.....	196
New York.....	5,058	4,848	6,836	6,960	10,333	7,090	7,486	8,132	8,174	9,758
Providence, R. I.....	2,664	913	4,836	2,585	3,630	2,351	3,108	2,888	2,616	2,616
Boston.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Philadelphia.....	2,779	1,030	2,586	1,286	2,845	896	2,126	1,963	1,291	1,649
Baltimore.....	301	427	478	1,167	2,433	208	517	219	296	770
Portsmouth.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other Coastwise Ports.....	115	217	2,145	1,100	2,194	225	287	482	223	617
Western States.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	50,378	62,045	69,679	81,249	89,891	68,068	54,667	40,436	30,780	35,555

RECAPITULATION.

Great Britain.....	8,895	24,505	12,553	22,523	27,437	20,969	20,963	9,139	8,748	8,969
France.....	3,497	4,388	8,013	11,104	11,648	6,974	8,512	6,698	1,770	4,878
North of Europe.....	8,018	13,301	19,051	30,175	21,819	20,282	8,040	6,005	2,654	3,498
South of Europe and China.....	17,849	12,516	11,029	14,349	7,536	9,033	5,616	5,002	4,806	2,989
Coastwise.....	11,317	7,436	17,033	13,098	21,655	10,810	13,503	13,694	12,802	15,410
Total.....	50,378	62,045	69,679	81,249	89,891	68,068	54,667	40,436	30,780	35,555

OTHER EXPORTS OF NEW ORLEANS, TO SEPTEMBER 1.

Table showing monthly exports of various goods from New Orleans from September 1846 to August 1849. Columns include 'TO' (destinations), and sub-columns for '1846-7', '1845-6', and '1844-5' (commodities: Flour, Whiskey, Lead, etc.) and '1846-7', '1845-6', '1844-5' (vessel types: Barques, Schooners, Brigs, etc.).

In the above the exports to Mobile, &c., via the Pontchartrain railroad and new canal, are included.

MONTHLY ARRIVALS OF SHIPS, BARQUES, BRIGS, SCHOONERS AND STEAMBOATS AT NEW ORLEANS, TO AUGUST 31.

Table showing monthly arrivals of ships, barques, brigs, schooners, and steamboats at New Orleans from September to August. Columns include 'MONTHS' and sub-columns for '1846-7', '1845-6', '1844-5', and '1843-4' (vessel types: Ships, Barques, Brigs, Schooners, Steamboats) and '1846-7', '1845-6', '1844-5', '1843-4' (Summary: Total, Greenboats, Barques, Brigs, Schooners).

EXPORTS SUGAR AND MOLASSES, TO AUGUST 31, FROM NEW ORLEANS—RIVER TRADE NOT INCLUDED.

	1846-7.						1845-6.					
	Sugar.		Molasses.		Sugar.		Molasses.		Sugar.		Molasses.	
	hhd.	bb.	hhd.	bb.	hhd.	bb.	hhd.	bb.	hhd.	bb.	hhd.	bb.
New York	18,754	802	2,942	15,981	38,088	2,418	3,082	2,418	3,082	318	17,515	
Philadelphia	11,853	853	90	4,512	21,804	2,431	580	2,431	580	13,925	13,925	
Charleston, S. C.	5,147	647	..	5,238	3,412	1,198	2	3,412	1,198	6,328	6,328	
Savannah	1,892	68	..	1,793	1,082	85	..	1,082	85	2,214	2,214	
Providence and Bristol, R. I.	..	..	..	..	..	..	579	..	..	290	290
Boston	636	43	22	418	3,208	1,288	318	3,208	1,288	1,404	1,404	
Baltimore	5,981	395	337	2,348	9,143	1,672	186	9,143	1,672	5,191	5,191	
Norfolk Richmond & Petersb'g, Va.	4,908	986	259	3,228	3,897	1,315	37	3,897	1,315	3,797	3,797	
Alexandria, D. C.	156	..	..	511	175	..	..	175	..	428	428
Mobile	3,783	1,038	..	6,497	5,739	1,020	10	5,739	1,020	13,464	13,464	
Apalachicola and Pensacola	1,415	473	..	2,568	1,067	158	..	1,067	158	2,039	2,039	
Other ports	371	76	540	298	533	8	..	533	8	871	871	
Total	60,113	5,451	4,053	42,908	83,908	11,468	4,703	83,908	11,468	87,214	87,214	

	1844-5.				1843-4.				1842-3.			
	Sugar.		Molasses.		Sugar.		Molasses.		Sugar.		Molasses.	
	hhd.	bb.	hhd.	bb.	hhd.	bb.	hhd.	bb.	hhd.	bb.	hhd.	bb.
New York	49,142	8,784	2,878	24,322	11,422	217	1,882	15,744	31,549	7,285	29,080	
Philadelphia	21,392	1,432	2,418	11,575	8,478	897	364	4,314	14,474	708	1,393	
Charleston, S. C.	4,288	98	..	5,610	1,502	..	..	5,467	1,080	100	63
Savannah	793	10	..	2,628	483	..	..	1,384	240	..	1,640
Providence and Bristol, R. I.	..	..	..	..	..	..	..	..	..	..	..
Boston	6,082	543	1,124	14,221	917	..	475	55	..	..	878
Baltimore	19,564	480	547	10,843	8,482	42	688	5,231	8,685	863	1,183	
Norfolk	..	..	..	..	..	..	..	2,839	610	28	..
Richmond & Petersburg, Va.	500	208	98	6,029	1,580	1	..	1,581	2,337	..	216	
Alexandria, D. C.	201	..	95	84	280	..	..	380	582	..	675
Mobile	3,534	668	76	5,218	3,257	17	..	2,838	3,011	375	..	
Apalachicola and Pensacola	839	102	..	1,795	1,070	548	..	2,440	885	306	..	
Other ports	780	229	391	881	43	22	112	750	102	100	800	
Total	104,501	10,581	17,064	64,416	84,286	1,544	3,408	42,982	66,044	2,280	12,386	

RECEIPTS PRODUCE AT NEW ORLEANS, 1847, AND VALUE.

Articles.	Amount.	Average.	Value.
Apples	39,612	\$ 3 00	\$ 118,636
Bacon, assorted	28,607	60 00	1,716,420
“ “	8,325	30 00	249,750
“ hams	14,518	65 00	943,670
“ in bulk	425,163	0 06	25,509
Bagging	60,982	10 50	640,311
Bale rope	56,201	6 00	337,206
Beans	24,536	4 00	98,144
Butter	51,384	5 00	256,920
“ “	872	20 00	17,440
Beeswax	1,109	40 00	44,360
Beef	32,738	10 00	327,380
“ “	21,230	16 00	339,680
“ dried	49,000	0 07	3,430
Buffalo robes	55	60 00	3,300
Cotton	740,669	44 00	32,589,436
Corr meal	88,159	3 50	308,565
“ in ear	619,576	1 10	681,533
“ shelled	2,386,510	2 00	4,773,020
Cheese	57,429	3 50	201,001
Candles	8,496	3 50	29,736
Cider	477	3 00	1,431
Coal, Western	356,500	0 75	267,375
Dried apples and peaches	8,770	2 50	21,925
Feathers	3,498	25 00	87,450
Flaxseed	962	9 00	8,658
Flour	1,617,675	5 50	8,897,213
Furs	328	..	600,000
Hemp	60,238	15 00	903,570
Hides	98,342	1 25	122,927
Hay	95,231	3 00	285,693
Iron, pig	1,151	30 00	34,530

Articles.	Amount.	Average.	Value.
Lard	143	\$80 00	\$ 11,440
"	117,077	23 00	2,692,771
"	275,076	4 00	1,100,304
Leather	3,716	20 00	74,320
Lime, Western	5,994	1 00	5,994
Lead	650,129	2 75	1,787,854
" bar. s.	1,291	15 00	19,365
Molasses (estimated crop)	6,000,000	0 24	1,440,000
Oats	588,337	0 90	529,503
Onions	7,185	2 00	14,370
Oil, linseed	3,637	20 00	72,740
" castor	1,439	20 00	28,780
" lard	2,573	22 00	56,936
Peach brandy	72	16 00	1,152
Potatoes	142,888	2 00	285,776
Pork	302,170	12 00	3,626,040
"	9,452	40 00	378,080
" in bulk	8,450,720	0 06	507,042
Porter and Ale	1,363	7 50	10,222
Packing Yarn	2,193	5 00	10,965
Skins, deer	1,784	20 00	35,680
" bear	71	15 00	1,065
Shot	3,992	18 00	71,856
Soap	4,361	2 60	11,338
Staves	2,000	25 00	50,000
Sugar (estimated crop)	140,000	70 00	9,800,000
Spanish moss	5,990	4 00	23,960
Tallow	6,658	20 00	133,160
Tobacco, leaf	44,588	55 00	2,452,340
" strips	11,000	100 00	1,100,000
" chewing	3,930	12 50	49,125
"	1,001	3 00	3,003
Twine	1,334	7 00	9,338
Vinegar	1,059	4 00	4,236
Whiskey	126,553	10 00	1,265,530
Window-glass	3,805	4 00	15,220
Wheat	833,649	2 30	1,917,392
Other various articles—estimated at .....	.....	.....	5,500,000
Total value .....	.....	.....	\$90,033,256
Total in 1845-6 .....	.....	.....	77,193,464
Total in 1844-5 .....	.....	.....	57,199,122
Total in 1843-4 .....	.....	.....	60,094,716

COTTON RECEIPTS, EXPORTS, AND STOCKS.

PORTS.	Stocks on hand Sept. 1.		Received since 1st September.		Exported from Sept. 1, 1846, to dates.				Stk. on hand & on ship-bd		
	1846	1845	1846.	1845.	To Great Britain.	To France.	Other For'gn Ports.	Total Foreign Ports.	U. S. North Ports.	1847	1846
	New Orleans ... Aug. 31	6332	7556	707324	1041303	386308	96719	38220	565007	158601	23493	6332
Mobile	7476	609	324221	421188	127518	39838	19784	186940	97853	31525	7000
Savannah	5922	2736	283374	184563	107227	11150	944	118321	98008	5968	6824
Charleston	8700	10879	348538	248766	121682	51452	17222	190838	158040	28478	8372
Florida	1068	100	127918	139381	30898	2592	8228	36726	71876	2345	1943
Virginia	6	100	11130	12125	152	.....	.....	152	.....	260	308
N. Carolina	100	100	6073	9401	.....	.....	.....	.....	.....	400	1000
New York	46539	43887	.....	.....	49440	38111	94898	120449	.....	108013	54290
Other Ports	20950	25941	.....	.....	947	425	898	2088	.....	4480	5637
Total, bales	97218	94128	1753678	2056215	823210	238087	180892	1218968	581279	204942	91298
Total to dates, 1846	94128	.....	2056815	.....	1087396	365398	194416	1647188	584507	.....	.....
Increase this year	3080	.....	.....	.....	.....	.....	.....	.....	.....	118714	.....
Decrease .....	.....	.....	298237	.....	374176	119290	83794	427190	8328	.....	.....

Receipts from Mobile and Florida are taken from New Orleans; from Charleston, those received from Savannah; from Mobile, the receipts from Florida. Exports from Georgetown, S. C., to N. Y., are added to Charleston receipts; exports from Darien, to Savannah receipts; exports from Mobile and Florida, to

New Orleans; and from Savannah to Charleston, are deducted from exports to Northern ports.

COMMERCE OF NEW ORLEANS

Comparative Arrivals, Exports, and Stocks of Cotton and Tobacco at New Orleans for ten years, from 1st September each year to date.

Years.	COTTON—BALES.			TOBACCO—HDS.		
	Arrivals.	Exports.	Stocks.	Arrivals.	Exports.	Stocks.
1846-47.....	740,669	724,508	23,493	55,558	80,376	22,328
1845-46.....	1,053,633	1,054,857	6,332	72,896	62,045	17,924
1844-45.....	979,238	984,616	7,556	71,493	68,679	7,673
1843-44.....	910,854	895,375	12,934	82,435	81,249	4,859
1842-43.....	1,089,642	1,088,870	4,700	92,509	89,891	4,873
1841-42.....	740,155	749,267	4,428	67,555	68,058	2,255
1840-41.....	822,870	821,228	14,490	53,170	54,667	2,758
1839-40.....	954,445	949,320	17,867	13,827	40,436	4,409
1838-39.....	578,514	579,179	10,308	28,153	30,780	1,294
1837-38.....	742,720	738,313	9,570	37,588	35,555	3,834

Comparative prices of middling to fair Cotton at New Orleans, &c.

	1846-7.	1845-6.	1844-5.	1843-4.	1842-3.
September.....	7½ @ 9	7¼ @ 8½	6 @ 7½	5¼ @ 8	6 @ 8
October.....	8¼ @ 10	6½ @ 8½	5½ @ 7½	7 @ 8½	6½ @ 8
November.....	9 @ 10½	7 @ 8	5½ @ 6½	6½ @ 8	5½ @ 7½
December.....	9 @ 10½	6½ @ 7½	4½ @ 6½	7½ @ 8½	5½ @ 7½
January.....	10 @ 11½	6½ @ 7½	4½ @ 6½	8½ @ 10½	5½ @ 7½
February.....	11½ @ 13	7½ @ 7½	4½ @ 6½	8½ @ 10	5½ @ 7½
March.....	9½ @ 11	6½ @ 8½	5 @ 6½	8½ @ 9½	4½ @ 7
April.....	10½ @ 11½	6½ @ 8½	5½ @ 7½	7½ @ 9½	4½ @ 7½
May.....	10½ @ 12½	6½ @ 8½	5½ @ 7½	6½ @ 8½	5½ @ 7½
June.....	9½ @ 11½	6½ @ 8	5½ @ 7½	7 @ 8½	5½ @ 8
July.....	9½ @ 10½	6½ @ 8	6½ @ 7½	6½ @ 8½	5½ @ 8
August.....	10½ @ 12	7 @ 8½	6½ @ 7½	6½ @ 8	5½ @ 8

	bales.	bales.	bales.	bales.	bales.
Receipts at N. O.....	707,324	1,053,633	979,238	910,854	1,089,642
Crop of U. S.....	1,800,000	2,100,537	2,400,000	2,030,409	2,378,875

Imports of Specie for three years, from 1st September to 1st August.

1846-7.....	\$6,680,050
1845-6.....	1,872,071
1844-5.....	2,249,138

Monthly arrivals of Flat-boats for the past season.

MONTHS.	MONTHS.										Total.		
	Ohio.	Kentucky.	Indiana.	Virginia.	Pennsylvania.	Illinois.	Missouri.	Iowa.	Arkansas.	Alabama.		Tennessee.	Mississippi.
September.....	7	..	1	..	..	1	..	..	..	..	2	2	13
October.....	13	2	6	..	5	1	..	..	..	..	1	..	23
November.....	51	..	19	1	12	1	3	..	1	..	2	2	107
December.....	157	..	54	10	31	5	6	..	1	..	4	1	301
January.....	69	..	110	9	15	7	5	1	..	..	8	..	242
February.....	129	36	103	..	12	14	2	1	2	1	12	8	320
March.....	74	26	109	1	9	6	1	..	1	25	26	9	287
April.....	117	72	187	9	14	30	1	..	1	33	17	9	490
May.....	57	51	67	4	8	22	2	..	11	..	21	..	243
June.....	79	20	42	1	..	10	..	6	..	4	19	..	181
July.....	60	21	63	1	2	12	..	3	..	..	6	1	169
August.....	4	3	3	1	..	..	..	..	..	..	..	..	11
Total.....	817	296	764	37	108	109	20	11	6	74	118	32	2392

Also about 400 from various States with cattle, sheep, hogs, lumber, &c., making a total of 2,792.

Foreign Merchandise.—Direct Imports of Coffee, Sugar, and Salt for three years, from September 1 to August 31.

	1846-7.	1845-6.	1844-5.	1843-4.	1842-3.
Coffee, Havana.....	bags.. 43,931	10,899	167,669	4,094	167,669
Coffee, Rio.....	bags.. 205,111	215,031	5,442	3,473	3,473
Sugar, Havana.....	boxes 45,889	259,481	361,486	518,407	
Salt, Liverpool.....	sacks 344,852	110,849			
Salt, Turks' Island, &c.....	bush 194,431				

Prices of Sugar on the Levee.

	1846-7.	1845-6.	1844-5.	1843-4.	1842-3.
	cents.	cents.	cents.	cents.	cents.
September.....	4½@7½	6 @6½	5 @6½	5½@6½	3 @4½
October.....	6½@9	6 @7½	5 @6½	6 @7	4 @6½
November.....	5½@7	5 @7	4 @5½	5 @6½	3½@6
December.....	4½@7	4 @6½	3 @5½	4½@6½	3½@4½
January.....	5 @7½	4½@6½	2½@5½	4½@7½	3 @4½
February.....	5 @7½	4 @6½	2½@5½	5 @7½	3½@5
March.....	5½@7½	4 @6½	3 @5½	5 @7½	3½@5
April.....	5½@7½	4 @6½	5 @6½	5½@7½	3½@5
May.....	5 @7½	4½@6½	5 @6½	5½@7½	3½@5½
June.....	5 @7½	4 @6½	4½@6½	4½@6½	4½@5½
July.....	5 @7½	4 @6½	4½@6½	4½@6½	4½@6
August.....	5½@8	4½@7½	5½@7	4½@6½	5 @6½

Prices of Molasses on the Levee.

	1846-7.	1845-6.	1844-5.	1843-4.	1842-3.
	cents.	cents.	cents.	cents.	cents.
September.....	15 @22	24 @27	26 @28	18 @21	10 @12
October.....	20 @25	21 @24	24 @26	23 @24	9 @11
November.....	26 @26½	21 @22	20 @21	14 @20½	11 @17
December.....	23 @23½	20 @—	20½@20½	20 @21	14 @15½
January.....	24½@25	21 @21½	16½@17½	22½@23	12 @13½
February.....	27 @—	21 @21½	14½@16	22 @23	13 @14
March.....	29 @29½	22½@23	20½@21	23 @24	11 @12½
April.....	25 @29	25 @25½	25 @26	23 @25	15 @16
May.....	26 @30	23 @23½	24 @27	25 @26½	15½@16
June.....	26 @30	18 @22	18 @27	24 @25	17½@19
July.....	26 @30	15 @20	20 @27	24 @26	19 @22
August.....	28 @31	15 @21	26 @28	25½@26½	20 @22

Prices of Flour on the Levee.

	1846-7.	1845-6.	1844-5.	1843-4.	1842-3.
	dollars.	dollars.	dollars.	dollars.	dollars.
September.....	3½@4	3½@4½	—@6	4½@4½	4½@4½
October.....	4 @4½	3½@4½	3½@4½	4 @4½	3½@3½
November.....	5 @5½	4½@5½	4 @4½	4 @4½	3½@4
December.....	4½@5½	7½@8½	4 @4½	4½@4½	4½@—
January.....	4½@5½	5½@7	4½@5½	4½@4½	4 @—
February.....	6 @6½	5 @6½	3½@4½	4½@—	3½@3½
March.....	5½@6½	4½@5½	4 @4½	4½@4½	3½@3½
April.....	6 @6½	4½@5	3½@4½	4½@4½	3½@4
May.....	5½@6½	4 @4½	3½@4½	4½@4½	3½@3½
June.....	6½@7½	3½@4½	3½@4½	3½@3½	4½@5
July.....	6 @7	3 @4	3½@4½	3½@4½	4½@5½
August.....	4 @5½	3½@4	4 @4½	4 @5½	4 @4½

Prices of Corn in sacks on the 1st of each month.

	1846-7.	1845-6.	1844-5.	1843-4.	1842-3.
	cents.	cents.	cents.	cents.	cents.
September.....	36@40	40@42	43@44	42@43	33@33
October.....	60@65	35@38	40@—	37@40	32@31
November.....	58@75	45@50	43@45	34@35	30@31
December.....	60@70	80@82	34@37	43@45	45@47
January.....	55@67	55@63	37@38	36@38	34@35
February.....	80@90	40@50	38@40	32@33	26@26
March.....	75@90	47@52	40@41	35@35	28@30

	1846-7. cents.	1845-6. cents.	1844-5. cents.	1843-4. cents.	1842-3. cents.
April	80@95	42@50	35@36	40@42	35@36
May	55@70	40@50	35@38	40@41	35@40
June	65@80	35@40	28@32	33@35	34@36
July	65@75	25@32	30@34	40@43	42@—
August	40@50	30@35	34@36	40@45	40@42

Prices of Mess and Prime Pork on the first of each month.

	1846-7		1845-6	
	Mess.	Prime.	Mess.	Prime.
September	\$ 8½ @ 8½	\$ 6½ @ 6½	\$ 17 @ 17½	\$ 13 @ 13½
October	8½ @ 8½	7 @ 7½	16 @—	11½ @ 12½
November	9½ @ 9½	8 @ 8½	14½ @ 14½	10½ @ 11
December	8½ @ 9	7½ @—	15½ @ 16	13½ @—
January	9½ @ 9½	8½ @ 8½	15½ @ 15½	13½ @ 14
February	14 @ 14½	12 @ 13	10½ @ 11	9½ @ 10
March	15 @ 15½	12½ @ 12½	10½ @ 11	9½ @ 10
April	15 @ 15½	12½ @ 12½	11 @ 11½	9 @—
May	16 @ 16½	12½ @ 12½	10½ @ 10½	8½ @ 8½
June	15½ @ 16½	12½ @ 12½	9½ @ 10	7½ @ 8
July	16½ @ 16½	13½ @ 13½	9 @ 9½	7 @ 7½
August	16 @—	13 @—	8½ @ 9	6½ @ 7

Exchange on London, Paris, and New York on the 1st of each month (60 day bills).

	1846-7.			1845-6.			1844-5.		
	London. pm.	Paris. pr. ct. \$	New York. dis.	London. pm.	Paris. pr. ct. \$	New York. dis.	London. pm.	Paris. pr. ct. \$	N. Y. dis.
September	8	5 31	1½	9½	5 26	2	9½	5 28	1½
October	8½	5 32	1½	8½	5 31	2	8½	5 31	1½
November	7	5 41	1½	8	5 32	2	8½	5 31	1½
December	5½	5 48	1½	6	5 37	2½	8½	5 27	1½
January	4½	5 50	2	7	5 36	2½	8½	5 30	1½
February	5	5 45	2½	6½	5 37	2½	8½	5 28	1½
March	3	5 50	2½	6½	5 37	2½	8½	5 30	2
April	2	5 55	2½	7½	5 35	2	7	5 31	2
May	5	5 45	1½	8½	5 31	1½	8½	5 27	1½
June	4½	5 40	2½	7½	5 40	2½	9	5 28	½
July	5	5 36	2	6½	5 42	2½	9½	5 30	½
August	4½	5 38	1½	7	5 41	1½	10	5 27	par

Rates of Freight on Cotton on the first of each month.

	1846-7			1845-6		
	Liverpool. d.	Havre.	New York. ct.	Liverpool. 9-16d.	Havre. 1 ct.	New York. ½ ct.
September	½	1-16	½	9-16d.	1	½
October	½	1-16	½	9-16	1½	9-16
November	½	½	½	½	1	½
December	½	1	½	9-16	1½	½
January	½	1½	½	7-16	½	7-16
February	9-16	1½	½	7-16	½	½
March	1	2	1½	½	1-16	½
April	½	1½	½	½	1-16	½
May	½	1½	½	½	1½	9-16
June	9-16	1	½	½	1½	½
July	½	1½	½	9-16	1½	½
August	½	1½	½	17-32	1½	9-16

The annual statements of the PRICE CURRENT and COMMERCIAL TIMES, certainly the most complete and valuable commercial reports made by the press of our country, and probably of the world, on the first day of September last, have many judicious reflections. Some of them we shall take the liberty of noting.

Mr. Littlefield opens with a review of the extraordinary results in the corn and cotton markets—the fluctuations—the advances, etc. The famine in Europe, however beneficial to western granaries, could only be injurious to southern cotton fields—"dear food and dear clothing cannot be maintained at the same time."

From reflections such as these, he passes in review the wonderful developments of the magnetic telegraph and its extension southward, the Ocean Steamship navigation, the Mexican war, etc.

Mr. Huyliker, in relation to the Cotton prospects of another year, remarks, after reviewing the whole operation of the last, &c. :

Having thus brought down the operations of the season to their final close, it may not be amiss to offer some few remarks with regard to the future. The prospect for a continuance of the present range of prices, appears to be decidedly favorable. The stocks of cotton in Liverpool, Havre, and at all other points, are reduced to a lower figure than they have reached for the last nine years, and this in the face of a greatly diminished consumption brought about by a general resort to working short time. The result is, that the stocks of manufactured goods all over the world, have been materially lessened, while, at the same time, the supply of the raw material in the hands of the spinners is represented to be much smaller than usual. Unquestionably the main obstacle last season, in the way of a permanent improvement and stability in the trade, was, the extravagant value and scarcity of food all over Europe, which, bringing in its train a multiplicity of other evils, such as an extreme tightness of money matters and high rates of freight, at one time forced the price of cotton much below its intrinsic value. Reasoning, as we may do, that opposite causes are likely to produce opposite effects, it is a source of satisfaction to know, that, from present appearances, no such disturbing circumstances will be brought to bear upon the market during the coming season, or that if they do affect us in any degree, it will be in a greatly diminished ratio, compared with the intensity of last year. From all accounts the harvest in England will be abundant, and although supplies of our bread-stuffs may probably be required for Ireland, yet it is not apprehended that the shipments will be sufficiently large to derange the monetary system of the country. In the Southern portion of Europe, the grain crops have been already gathered, and in the North the promise is so good, that no supplies will be needed for the Continent. Under these circumstances, we have every right to expect a material improvement in trade; in fact it has already shown itself in England, in the more general approximation of the price of goods to the raw material, and bids fair to be permanent, without the intervention of some unexpected reverse."

Both statements comment upon the great falling off in the receipts of Tobacco, amounting to 17,000 hhd. The *Times* attributes it to reduced cultivation, though large stocks are stated as having not yet reached market. The *Price Current* remarks :

As regards the quality of the past crop, it did not by any means equal the expectations that were formed of it early in the season. On the Ohio river, and in some sections of Tennessee, it was unusually good; but in most other parts of the country it was generally rather common, and in some regions very poor.

We would again call the attention of our planting friends to the decided and increasing preference shown in this market to tobaccos of a *marked character*; which go off so much more readily than those of a nondescript kind. They will, we are persuaded, find it greatly to their interest so to cure their tobacco as to make it *dark and rich or light and leafy*.

The two statements differ in reference to SUGAR; the *Times'* estimate of last year's crop with stocks being 152,000; the *Price Current's*, 142,500. This will show the uncertainty of the matter. An importation of 45,000 boxes Havana sugars against 5,000 in 1845-6 had a marked effect upon Louisiana sugars. The distribution of the crop has been as follows: consumption of city and neighborhood sold in small parcels, &c., 14,000 hhd.; refiners in city and State, 3,000 hhd.; stock 4,000; exports generally, 51,500, including from Attakapas which did not reach New Orleans, 51,500 hhd.; estimated exports up the Mississippi for the western States, 70,000 hhd.; being 5,000 less than last year. The West has however supplied itself partially from Cuba in consequence of deficient supplies at home. The *Price Current* concludes :

With regard to the crop now in progress, it affords us pleasure to state that all accounts from the interior concur in representing it as affording most flattering promise. And should the weather continue favorable, and the cane escape the blighting effects of an early frost, there is good reason to expect that the product of this important staple of our State will exceed that of any previous year since the introduction of its cultivation. The following is a statement of the crops

for a series of years, by which it will be seen that the product is subject to remarkable fluctuations.

There is a difference of 1,000,000 gallons in the two estimates of the *MOLASSES* crop of last year. The *Times* makes it 7,000,000 gallons against 9,000,000 of the previous year—about 65 per cent. of which was consumed in the southern and western States. The imports of Cuba molasses were very large.

We copy the *Price Current's* judicious remarks upon Western produce :

" In our previous annual reports the branches of our commerce embraced under this head have commanded more and more of our attention, from year to year, according to their rapidly extending importance; but during the past season, particularly in the department of *breadstuffs*, they have attained to a prominence which gives remarkable evidence of the surprising advancement of the fertile West, in the development of her great resources. In corroboration of this position it will be seen, by reference to our tables, that the receipts of *flour* have been about double those of last year; being 1,617,675 barrels, against 837,985 barrels last season; or about five times as much as was received ten years ago. The increase in *Indian corn* has been still more remarkable, the receipts this season being equal to 7,065,000 bushels, against 3,543,000 bushels last year; or more than seven times as much as was received ten years ago. The receipts of *wheat* have always presented great fluctuations; but during the past two years the increase has been immense. In 1845-6 the quantity received was more than quadruple that of any previous year; and the arrivals of the past season are more than double those of 1845-6; being equal to 1,670,000 bushels, against 808,000 bushels. In 1837-8 the receipts of this article did not amount to 5,000 bushels. Thus has closed the most important and exciting year, as regards the traffic in breadstuffs, that our country has ever seen; and our city has shared largely in the trade; standing next to New York in the amount of its exports. With regard to supplies for the coming season, there seems a probability that, what with favorable crops and increased cultivation, our country will furnish a still larger surplus for export than during the past year—particularly of Indian corn; and although the prospect of good crops throughout the countries of Europe will, if realized, render them less dependent upon foreign imports than during the season just closed, yet it is supposed that their usual home stocks are so far exhausted that there will still exist a large deficiency, to be made up principally from this country. It is not likely, however, that prices will rule as high as they have done during the greater part of the past year; though it is not improbable that, through the increase of inland and sea tonnage, and the extension of canal and railroad facilities, the average cost of transportation, both from the interior and to foreign countries, may be so far reduced as to leave the producer an ample remuneration.

The subject of *HEMP* has become of great importance in the commerce of the Western States and New Orleans. The following extract traces its history :

So late as the year 1841-2 the total receipts at this port from the West were only 1211 bales; as nearly the whole production was—and had been for a series of years—consumed in the interior in the manufacture of cotton bagging and rope. About this time, however, the attention of Government was directed to our home product, and measures were taken to test its applicability to naval purposes. The tests applied, under the direction of scientific men appointed for the purpose, gave highly favorable results; and the expectation of an extended market gave a stimulus to enlarged cultivation. Our first notice of the article was in our annual Statement of 1st September, 1844; when we took occasion to remark that the day was " probably not far distant when American hemp would not only supersede the use of the Russian in our own marine, but successfully compete with it in the markets of Europe." This prediction has been more speedily fulfilled than could have been anticipated, as will be seen by the fact that the receipts from the West this season have been 60,238 bales, while the imports from Russia into Boston and New York, have been less than 500 tons. Of the quantity received here 47,411 bales were exported to the North, against 24,265 bales last year, and 4,977 bales to Europe, against 6,851 bales the year previous; but notwithstanding this increase in the supply prices have averaged much higher than in any previous year; and to this fact may be attributed the falling off in the foreign export; the increased demand for home use having driven most of the European orders out of market. It may be proper here to remark, however, that the increase of receipts does not present the true ratio of increase in production; for the reason explained in our last annual statement—when we stated that high freights in the early part

of the season, and subsequently low waters in the rivers, had prevented a considerable portion of the Missouri crop from reaching market. The portion of the crop of 1846 thus detained in the interior is estimated to have been about 16,000 bales; and it is this addition to the crop of 1847 that has swelled our receipts this year to 60,238 bales; which at an average of 375 lbs. per bale is equal to about 10,000 tons. The comparative receipts, and average prices, for a series of years, will be shown by the following table:

	Bales.	Per ton.
1842-3.....	14,873.....	\$80 00
1843-4.....	38,062.....	66 00
1844-5.....	46,274.....	60 00
1845-6.....	30,980.....	60 00
1846-7.....	60,238.....	90 00

We conclude with COFFEE. In our November No. 1846, we published an admirable article upon this subject, by our esteemed and talented friend, J. S. Duke Esq., of New Orleans—an article which has on many hands been highly complimented. Mr. Duke clearly showed the importance of New Orleans as a coffee mart. One passage of his paper we cannot forbear quoting:

"From the 1st January to 30th September, 1846, the imports of coffee into New York amounted to 270,520 bags, but we must consider that she receives large quantities of Mocha, Java and the finer grades of coffee, for which we have but a small consumptive demand. Every possible aspect, therefore, in which we can view this question, brings us to the conclusion that while the present imports into New Orleans follow hard upon those of New York, the day is not far distant when the former will find herself without a rival in that branch of this trade, to the employment of which her capital and energies will, for the future, be directed."

"Our market" says Mr. Littlefield "continues to attract a large and increasing share of the trade in this important article of foreign production; and the advantages which our city possesses, in its comparative proximity to the countries of growth, and the peculiar facilities for cheap transportation to the consuming markets of the West, would seem to afford assurance of a steady advancement that will ere long give it a pre-eminence over all others in this branch of foreign commerce. The *movement* of the market during the past season has been as follows:

Estimated stock out of grocers' hands on 1st Sept., 1846, of all kinds.....	Bags 22,000
Imports direct from Rio de Janeiro.....	205,111
" " " Cuba, Laguayra, St. Domingo, &c.....	43,931—249,042
Received coastwise for sale, (estimated).....	41,000
Making a supply of.....	312,042

against a supply of 277,930 bags last year; increase 34,112 bags, nearly all of which is in the direct imports from Cuba, &c.

PROSPECTS OF NEW ORLEANS IN THE FUTURE.

A study and comparison of these tables, &c., will give the most satisfactory notions of the extraordinary stature and advances of New Orleans commercially. Nothing appears capable of disturbing the city in its approaches to the highest destiny. Railroads and canals may tap the Great Valley and bear away to Eastern markets its abundant produce; disease and death may stalk in triumph, carrying dismay into every bosom in the devoted emporium! The influences are scarcely marked. Like the waves of the ocean, successive tides roll onward. From the midst of pestilence and death, life and vitality spring up. New thousands and tens of thousands swarm into the busy mart, and ere the gloomy pall has been torn away, nothing—no vestige—is left to proclaim the trying scenes that have been enacted. The busy quays teem again—the marts are thronged—the gay shipping of all the world float their colors in the breezes, and all the West, buoyant, and vigorous, and hopeful, find in the returned SEASON OF NEW ORLEANS all that heart could wish in the great game of life! Thus is there no pause—not even a momentary paralysis—in the energies of this magnificent city.

Let us not, however, under-estimate the value of the competition with which Atlantic cities are threatening New Orleans. It is already formidable, and the beginning but hardly made. Boston and New York were sure to be at the Chicago Convention, and their influences were most remarkable. The trade of the

North-west—a region of almost unexplored wealth—was the prize, and yet New Orleans had no representative in that arena—not one to proclaim her views or her sympathies, or assert her rights! A *Massachusetts* man is made Chairman of the Executive Committee of this Convention—Hon. Abbot Lawrence; a *New York* man is to draw up its most important report—Hon. J. C. Spencer. Do not all of these things speak loudly and admonish where the sceptre is departing? We speak not of the competition of other more southern cities, though sufficiently important. If taken together they are not calculated to alarm us, they should yet instruct. Our progress, though it may not be arrested, will yet in a measure be stayed. We shall not ascend so high as otherwise. Our course ought to be clear. Let us meet this competition which is sprung upon us. Let us improve the navigation and safety of the Mississippi, and guard entirely against the many abuses which have been complained of in the levees and warehouses and commercial economy of New Orleans. The most advantageous terms should be offered to shippers, the most desirable to buyers—the least restrictions everywhere—the *best of all legislation!* A foreign import trade should be opened to supply everything which the great central regions require. All of these things need capital, energy and enterprise—most of which we have—all of which *we must have* in the great race before us.

HEALTH OF NEW ORLEANS.

One other consideration connected with New Orleans is its health. We have, on many occasions, conclusively shown the misapprehension which obtains. From the year 1840 to 1847 there was but one season when the yellow fever was regarded as epidemic and effected much mischief. One of the intermediate summers we spent in New Orleans, where perhaps not a single case of the fell destroyer occurred. In ordinary seasons it is almost unimportant, and greatly less obnoxious than many other fevers. The cautious, the prudent and the more regular classes entirely escape the danger, while the destitute and dissolute fall. In at least five of the summers alluded to it might be safely said, *the health of New Orleans was equal to that of New York, and superior to Liverpool or St. Louis.* In all of them, without the fear of successful contradiction, we assert, on an average of the year round, New Orleans exhibits as small a mortality as any other great commercial city in our country. Tables exhibiting these facts we hope to present the reader before a very long time.

Nor do we condemn the terrors of YELLOW FEVER, such as it has presented itself several times in the history of New Orleans, particularly in the past season.* The keenest remembrance and appreciation of these affect us. Our friends and companions we have been called upon to mourn, and even from the highest places has the dread destroyer torn his victims. They have fallen—the high and the low—the wealthy and the humble—the stout and the feeble—young men and tender maidens—at times almost without a mourner by the grave! This is it that is terrible in death, to die where there are no familiar and loved faces around—alone with strangers! But what can surpass the lovely charities of New Orleans, which find a brother in the most abandoned child of clay—which raise him from his destitution—which minister to his wants—which watch with tender solicitude by his dying bed, and conduct him with meet solemnities to his final resting-place. Honor, imperishable honor, to the *holy charities of New Orleans!*

The vision, however, we said, has changed with the return of a new season, and the dance of life begins again.

“Tramp—tramp—how gally they go,
Ho, ho, for the merry, merry show.”

Twelve months ago, almost, this day, we wrote what may well be repeated on the opening of another winter:

“Let any man mark the change within a year or two, a change even now in wondrous progress. The increase of private residences, and the neatness, elegance, and in many instances splendor, with which these are finished, evidence that something more than mere temporary abodes are intended. Our American citizens are becoming citizens indeed, and the portion of the city which they ad-

* Several reflections may be thrown into a note. The disease in New Orleans during the past summer has not much exceeded that which prevailed in Montreal from ship fever. Indeed there were several causes for the great mortality of the first named city—the arrival of emigrants and discharged volunteers from Vera Cruz being foremost among them.

minister exhibits at this time a spectacle the most surprising and gratifying. This new state of things demands much at our hands. Something higher must be aimed at than mere trade and commerce, high as these may be. *A society must be formed, social institutions promoted, literature encouraged and sustained, intelligence broadly disseminated, and a fixed and settled order of things secured.* To this we are rapidly approaching, and may the day hasten on. From our position, advantages, and prospects, the world has much to expect, and must not be disappointed.

“Let a laudable public spirit take possession of us all. We have made the first step in establishing a system of common schools unsurpassed in the Union. The next step is evident. Education must not be begun only, but completed. The people demand institutions of a higher nature—academies and colleges. The new Constitution establishes a UNIVERSITY. This we must have if men are to be reared. Every branch of information can be communicated by it, the useful, the elegant and the practical. A professorship of the arts, of the sciences, of law, of literature, of *agriculture*, and of *commerce*—shall we not have these? Have we not wealthy citizens and public benefactors to endow them if that be necessary, and a liberal State legislature; or if another mode be resorted to, which would perhaps be better, and the professorships be required to sustain themselves by the attractions which they could throw around the lecture-room, as in Germany and Paris, have we not able men, and a population evidencing a disposition to be improved and enlightened?”

“Do we ask why the revelry by night has been heard among us, and why so many victims have yielded to the dread delusions of vice? The answer is ever made, *‘the sources of domestic and social enjoyment are so few in New Orleans.* It is impossible for strangers to find any access into society.’ Let us aim then to elevate public taste and enjoyment, and to arrest the progress of the mischief we have deplored.

“Finally, let us in all things then, in the year that is before us, encourage a taste among our citizens for those that are high and ennobling in themselves, and those only that can elevate us to the position which, as a great and growing community, we should so heartily covet.”

2.—COMMERCE OF CHARLESTON, 1846-47.

The exports of cotton and rice from Charleston from 1st September, 1846, to 31st August, 1847, have been as follows, as compared with the previous years:

	1847		1846	
	Cotton, bales.	Rice, casks.	Cotton, bales.	Rice, casks.
Foreign ports.....	179,576	89,273	160,233	54,525
Coastwise.....	156,064	48,658	87,841	46,090
Total.....	335,640	137,931	248,074	100,615

The increased exports of cotton are 87,457 bales, and of rice 37,316 casks. Of these exports there were shipped to New York:

	Rice, casks.	Cotton, bales.
1846.....	23,478	53,386
1847.....	27,191	98,542
Increase....	3,723	45,156

3.—MONTGOMERY, ALABAMA.

“Everything seems to be conspiring favorably to increase the growth and prosperity of Montgomery. Rapid improvements are going on throughout the whole extent of the city. The music of the saw, hammer and trowel is heard in almost every street. Under the hands of the industrious mechanic, several large and fine buildings have sprung up almost as if by magic, while every branch of business appears to have received a new impulse. Though burdened with an expense of near \$90,000 for the erection of the new State-house, the public-spirited and enterprising people of Montgomery are using every exertion to give it that importance which will render it the pride, not only of her own citizens, but of the whole people of the State. The removal of the capital to this place has contributed in no small degree to produce this interesting state of things. It has directed public attention to that point from every portion of the State, while its many advantages as a place of trade are inviting capital from all directions, and giving it a commercial importance inferior to no other city in the State, except Mobile.

It is surrounded on every side by a rich and fertile soil. Its location is healthful and beautiful, upon the great thoroughfare between New York and New Orleans, one the great commercial metropolis of the North and the other of the South. It is accessible at all seasons of the year by steamboats, connecting it directly with the trade of New Orleans and Mobile, and indirectly with the commerce of the world. Besides, the Montgomery and West Point Railroad is fast penetrating through the eastern portion of the State, opening facilities of transportation which will most assuredly secure Montgomery a very important trade from this and several of the adjoining counties, much of which has heretofore gone to Columbus and Wetumpka. Already has it reached the borders of our own populous and fertile county, affording greatly superior facilities for the transportation of their produce to the most of the farmers of this county. This road is now under thorough repair, furnished with excellent locomotives, and well fitted out with a good set of passenger and freight cars. These different channels of trade, in connection with the many advantages which it possesses from its location, fostered by that enterprising spirit which so eminently characterizes its inhabitants, is fast making Montgomery, our capital city, a place of no inconsiderable importance, while it is furnishing to the farmers of a large portion of the State an excellent and most convenient cotton market."

4.—GALVESTON, TEXAS.*

As you enter the harbor through the crooked channel, studded on both sides with shoals and breakers, the gloomy pelicans saluting you on every side, the approach is both difficult and dangerous; and, to add to the first impression, the old boiler of the steamer New York, wrecked there, seems to hold out of the water its rusty head to warn you off. Nevertheless, there is about eleven and a half feet of water on the bar, and the harbor is easily come-at-able to the initiated. The low, level and sandy, but grass-covered island of Galveston, on the north-eastern end of which the city is situated, is about thirty miles long, and has on it but three small groves of native trees, though of fruit trees there are plenty in the city, planted by its inhabitants. It is tolerably fertile, and owing principally to the industry of the German emigrants that have settled there, garden sance of all kinds abounds. It is also healthy for all but those who, unacquainted with the peculiarities of the climate, expose themselves to the hot mid-day summer sun, and thereby bring on attacks of the fever. It is, however, considered, with the majority of judges, to be more healthy at any season than New Orleans. Galveston bay is about 60 miles long and 35 wide; in its deepest parts there are about 12 feet of water. On its greatest unavoidable shoals there is about three feet. There are various islands in different parts of it; the largest is "Pelican," opposite the city of Galveston. This is, from one extremity to the other, about four miles long, and is to Galveston what Coney is to New York. It is destitute of timber, as are all the islands on the coast; nevertheless, it is, during the spring season, a great resort. Some visit for the purpose of making pic-nics or chowders—for the fast it is famous; others go for the sail, but most for the purpose of gathering the myriads of eggs deposited by gulls and other aquatic birds. It is supposed by some that the "margin channel" will gradually fill up and join Galveston island to the main-land. There is one reason in this, for the channel called "Bolivar," running between "Pelican" and the main-land, has visibly increased in depth within the last year, and a tooth or point of "Pelican," called the "Spit," has increased toward Galveston in proportion. Should this happen, the city would be transferred to "Bolivar Point" on the main-land, a few miles from its present site, as the untiring spirit of speculation, which is so prominent a characteristic of the citizens of Galveston, would, under any transformation which could possibly take place, maintain a depot as a link between the great inland navigation falling into Galveston bay and the sea.

The inhabitants of Galveston are decidedly intellectual. Their inherited independence is renovated as it were, and the spirit of improvement is making the most rapid strides both in regard to their political and social position. The streets are wide and straight, but their cleanliness is about on a par with New York, which is no compliment. One ameliorating item in this, they are not obliged to pay for *not* having it attended to, like the New Yorkers. Galveston is, particularly in the winter season, a lively place, plenty of balls, concerts, &c., and the society is by no means poor.

* Correspondent New York Sun.

5.—COMMERCE OF BOSTON, 1846-47.

We extract from the Shipping List the following comparative statement of the imports at Boston, from 1st Sept. 1846, to 1st Sept. 1847, and a corresponding period in 1845 and 1846:

	1846-7.	1846-4.	1846-7.	1845-6.
Coffee.....bags	220,057	233,597	Flour.....bbls.	842,523
".....piculs	10,700	10,200	Corn....bushels	1,810,546
Coal.....tons	227,678½	180,996	Oats....."	562,804
".....chaldrons	842	72	Rye....."	63,758
".....bushels	196,800	173,029	Shorts..."	82,427
Cotton....bales	222,076	196,031	Hemp.....tons	505½
Lemons...boxes	35,743	43,777	".....bales	41,266
Oranges..."	61,496	60,042	Hides...number	332,848
Figs.....drums	209,869	182,216	Lead.....pigs	131,793
".....cases	340	.....	Molasses..hhds.	79,537
Raisins...casks	26,074	24,693	".....tierces	4,490
".....drums	4,368	2,612	".....barrels	1,571
".....boxes	142,868	122,531	Linseed...bags	50,959
Codfish...drums	4,162	7,789	Sugar....hhds.	9,766
".....qtls.	1,655	3,348	".....bbls.	8,765
".....boxes	133,984	93,338	".....boxes	69,159
Mackerel...bbls.	82,919	69,270	".....bags	36,554
Herring...boxes	32,049	26,814		

RESOURCES, AGRICULTURE, TRADE, &C., OF THE STATES.

I.—MINERAL RESOURCES OF ALABAMA.

From the late scientific survey of Prof. Tuomey, we introduce a few passages showing the immense field of new enterprise in Alabama:

"The thickness of the coal measures, between Tuscaloosa and the highest point at which I have observed them, probably does not exceed 250 or 300 feet, and in this there are included at least ten beds of coal, varying in thickness from one to four feet; of these, *three at least are workable beds*—that is, beds in which a man can work under ground, and extract the coal without removing the shale or overlying rock.

"It is a common mistake with persons unacquainted with practical mining, to suppose that the value of a coal bed increases with its thickness; it is never desirable that it should exceed six feet, and four feet is quite a convenient thickness. When two beds are separated by a seam of shale, it is taken out with the coal, and both are worked at once. It must be borne in mind, that my observations have been altogether confined to natural exposures and sections, and that, consequently, future explorations, particularly by boring, may bring to light more numerous and thicker beds, but they cannot fall short of what I have indicated.

"Two facts of great practical importance, connected with the working of the Tuscaloosa coal-field, deserve notice: one, the entire absence of all those disturbing causes so productive of fruitless labor and expense in coal mines, and in mining language significantly termed 'troubles'—I have not seen, and I looked for them with care, a single dislocation or a trap dyke throughout the region that I examined; the other, that the strata dip toward the valley of the river, and hence favors the thorough drainage of the coal.

"I found, at several localities that I examined, a sufficient quantity of clay iron-stone, or argillaceous iron ore, to give assurance that farther examination will bring to light beds of this valuable ore of sufficient extent to be worked profitably. Although on an average not yielding more than 30 per cent. of iron, yet it is almost the only ore used in England.

"About three miles north of Lexington I examined a spring of sulphuretted water, very similar to Windham's Springs, on the Warrior, which may prove worthy of the attention of the medical faculty of the county.

"There are some quarries of flagging stones on North river that deserve notice. On Binion's creek a fine ledge occurs which has been worked to a sufficient extent to exhibit the excellent quality of the flag-stones, which are disposed in horizontal layers, varying in thickness from one to six inches.

"Throughout the coal measures numerous localities of millstone grit are found, at some of which millstones have been procured.

"Higher up there is a white silicious rock, resembling the Esopus stone, that is said to make excellent millstones.

"On the right bank of North river I examined a noted locality of sulphate of magnesia. The salt is found lining the fissures, and between the laminae of the slates, and not, as I had imagined, the result of the disintegration of the rock. An incrustation of fibrous gypsum is found associated with it, which, as well as the magnesia, must have been left by water which once percolated through these rocks.

"I regretted to perceive lingering hopes of finding veins of lead, and even of the precious metals, among the people of this region."

2.—PROSPECTS OF AMERICAN AGRICULTURE.

The lamented Hon. Silas Wright, in his address prepared for the New York State Agricultural Convention, has the following reference to our farming interests, which is so wise that we cannot forbear its insertion:

"Does any one believe that, for generations yet to come, the agricultural operations of the United States are to be circumscribed within narrower comparative limits than the present, or that the agricultural productions of the country are to bear a less ratio to our population and consumption than they now do? I cannot suppose that any citizen, who has given his attention to the considerations which have been suggested, finds himself able to adopt either of these opinions. On the contrary, I think a fair examination must satisfy every mind that our agricultural surplus, for an indefinite future period, must increase much more rapidly than our population and the demand for domestic consumption. This, I believe, would be true without the efforts of associations such as this to improve our agriculture. The condition of the country, and the inclination and preference of our population for agricultural pursuits, would render this result unavoidable; and if this be so, when the impetus given to agricultural production by the improvements of the day; the individual and associated efforts constantly making to push forward these improvements with an accelerated movement; the mass of educated mind turned to scientific researches in aid of agricultural labor; the dawning of a systematic and universal agricultural education; and the immense bodies of cheap, and fresh, and fertile lands, which invite the application of an improved agriculture, are added to the account, who can measure the extent or duration of our agricultural surplus, or doubt the soundness of the conclusion, that the export trade must exercise a great influence upon the market for the agricultural productions of the country for a long series of years to come?

"Such is the connection now between our agricultural and the export trade and foreign market; and these relations are to be extended and strengthened, rather than circumscribed and weakened, by our agricultural advances. The consumption of the country is far short of its production, and cannot become equal to it within any calculable period. On the contrary, the excess of production is to increase with the increase of population and settlement, and the improvements in agriculture and agricultural education. These appear to me to be facts, arising from the condition of our country, and the tastes and inclinations of our people, fixed beyond the power of change, and to which theories and principles of political economy must be conformed, to be made practically applicable to us."

3.—ENGLAND'S NOTIONS OF SUGAR AND COTTON CULTURE—AUSTRALIA.

The London Atlas, in a review of Dr. Lang's work published a few months ago, entitled "*Cookland in North-eastern Australia, the future cotton field of Great Britain*," remarks:

"The Australian region, hitherto known as Port Philip, appears by Dr. Lang's account to hold out quite a new field for the enterprise of emigrants, and it is his avowed object in these volumes to recommend it for the cultivation, by European free labor, of sugar, cotton, and other tropical productions. The climate, though warm, is said to be far more healthful and agreeable to Europeans than that of any other British colony in an equally low latitude; so much so that many settlers experience no difficulty in working nearly the whole day in the open air. Though free from the excess of moisture, often so dangerous in conjunction with the heat of the tropics, it is extremely well-watered, being intersected by lofty

mountains whose peaks shoot up to a height of five or six thousand feet, and are occasionally covered with snow; and thence descend numerous brooks, clear as crystal, and delightfully cool, which cover the whole country with a 'net-work' of streams, frequently large enough to deserve the name of rivers.

"At Brisbane town—a settlement already made on the bay—Dr. Lang first saw the cotton plants, which suggested the idea of the capabilities of the soil and climate for productions of this nature. They were growing in the garden of a Dr. Ballou, the colonial surgeon, and though little attention had been paid to them, as they were regarded merely as objects of curiosity, they were remarkably healthy and vigorous—the branches covered with pods, filled with cotton of snowy whiteness, and apparently of superior quality. The plant has actually, it appears, been found growing wild on some of the islands off the north-east coast; and some specimens since grown casually in a garden on the Brisbane river have been submitted to the judgment of a mercantile house in Glasgow, of long experience in the cotton trade, and have obtained from it the following certificate:

"Glasgow, 15th April. 1847.

"DEAR SIR—We have examined the small sample of cotton wool from Australia, carefully, and give it as our opinion, that if quantity could be produced, it is a very valuable kind, and would, in the present state of the market, readily sell at from 11d. to 12d. per lb., say eleven pence to one shilling per pound. It is clean in color, fine-stapled, but rather weak, which by care taken in cultivation, might be much improved.

"We remain, dear sir, yours most sincerely,

"JAMES & JOHN WRIGHT.

"William McBryde, Esq."

"It appears, therefore, that cotton of a most valuable description, equal to much of the Sea island from Georgia, in the United States, can be grown with perfect facility in the territory of Cooksland, in Australia. It is unnecessary to inform the reader how peculiarly interesting and important such a circumstance must necessarily be at the present moment, not only from the brilliant prospects which it holds forth for the future colony of Cooksland, in insuring remunerative employment to any conceivable extent for myriads of an industrious free emigrant population to inhabit the beautiful country I have been describing, but from its evident bearings on the question of an adequate supply of raw material for the manufactures of Britain, and on the still higher question of the rights and interests of humanity. It is well known that there has been a feverish feeling generally prevalent for some time past in the cotton trade, from an apprehension of an insufficient supply of the raw material for the rapidly extending manufactures both of this country and of the continent of Europe."

This may turn out to be a momentous suggestion for our American planters. The sugar-cane, too, grows luxuriantly, and the growth and manufacture of sugar appear to hold out very flattering prospects to future enterprise in this country. Dr. Lang is of opinion also that the separation of the cultivation of the cane from the manufacture of the sugar would be both practicable and desirable:

"There is a very prevalent idea, however, in England, that the cultivation of the sugar-cane and the manufacture of sugar must always be conjoined and carried on by the same persons, and that as this can only be effected by means of an extensive combination of labor, and the investment of a large amount of capital in the requisite buildings and machinery, it is a branch of business that can only be pursued successfully either in connection with the system of slavery, or when the party engaged in it has a large capital to expend in the employment of free labor. But this idea has arisen entirely from the long prevalence of the vile system of slavery in our West India colonies; for it appears to me that there can be no better reason assigned why the colonial farmer who cultivates the sugar-cane should also be able to superintend and conduct the delicate chemical processes of a sugar-manufactory, so as to monopolize in his own person both of these very different and distinct branches of business, than there can be for requiring the British corn-grower to be also a miller and a baker, or the British flax-grower to be also a flax-dresser and a weaver. Nay, as the operation of transforming the rich juice of the cane into sugar is a chemical process requiring the utmost tact and long experience to insure its success, while the operations of grinding and weaving are merely mechanical, it seems to me pre-eminently absurd to identify the cultivator and the manufacturer in the one case, and to keep them distinct in the other. No doubt, when a planter had three or four hundred negro slaves on his

estate, it was desirable, in order to keep these slaves constantly employed, to transform the farm, every season after the crop had been got in, into a manufactory; but the combination of the two distinct branches of business is contrary to the first principles of political economy, and to the uniform practice in every department of industry in the mother country.

"If the West India system of combining the cultivation of the cane with the manufacturing processes implied in the conversion of its juices into sugar, were absolutely necessary to the production of that commodity, I should scarcely recommend the cultivation of the cane at Moreton Bay, as the prospect of deriving any profit from the investment of so large a capital, and the maintenance of so extensive an establishment as this speculation would imply, would be very precarious. But if an establishment were to be formed for the manufacture of sugar in a central situation in the district, to be conducted by persons thoroughly acquainted with the process, and making it their exclusive business (purchasing the canes from the farmers, either at the boiling-house or in the field), I am confident the speculation would prove highly remunerative to all concerned. In that case every small farmer could have his cane-patch (to use the appropriate phrase of the West Indies), as well as his portion of ground under maize, wheat, or sweet potatoes, and there would be just as little difficulty in disposing of the cane to advantage as there is at present in disposing of the wheat or the maize; for if the sugar manufacturer did not give the colonial farmer a fair price for his canes, an opposition concern would very soon be got up to insure justice to the cultivator."

4.—TURPENTINE BUSINESS OF NORTH CAROLINA.

Statistical information in regard to the products and commerce of this State is exceedingly difficult to obtain; consequently all attempts at an estimate must be defective; but yet attempted estimates of an article which forms so important an item in the labor and wealth of Eastern Carolina as turpentine, cannot fail to be interesting, even should they fall below the truth, or in some degree rise above it; and they may possibly lead to good results. It is certainly very desirable that we should have some acquaintance with the resources of the State and the extent of her products, which our present means of information very partially furnish.

Few persons, perhaps, unconnected with the commercial transactions now carried on in this State in the single article of turpentine, can form an idea of the quantity annually made in our limits, the amount of labor employed in its manufacture, the large capital invested, the large number supported by it, and the various uses to which it is appropriated. Nor are we prepared to enlighten them fully upon the subject, because of the necessarily limited information which even dealers in the article possess, in reference to it. In our conversation with intelligent gentlemen engaged in the business, we have been enabled to gather up some particulars, however, which may be interesting.

We find the impression to be, that about 800,000 barrels of turpentine are now annually made in this State. Not more than 200,000 barrels, if that, were shipped to New York and other ports the past year in its crude state, and the largest portion of the whole being distilled in this State. The estimated value to the makers is about \$1,700,000 annually, and may be \$2,000,000. About 4 or 5,000 laborers are engaged in making it, and perhaps three times as many more human beings are supported mainly from the proceeds of its first sale. The distillation of turpentine in this State is now carried on very extensively, which will render the shipment of it in its crude state very small in future. It is supposed that there are now in operation about 150 stills, which at the average cost of \$1,500 with fixtures, shows that there is an expenditure of \$225,000 to begin with in the distilling of spirits of turpentine. This number of stills, to have steady work, would require 900,000 barrels, annually—more than is now made; which to us is an indication that the distilling business is overdone. Should the makers of the article continue to multiply stills, and thus monopolize the distilling, as well as the making, it will be necessary for those now engaged in it to invest their capital in other pursuits. The cost of distilling is very great, and when we reckon the cost of transportation, the profits of distillers, of ship owners, commission merchants, and the vendors of the article abroad, it will be seen that the capital and labor employed is not only immense, but the numbers who are supported by the manufacture and sale of the article is astonishing. Perhaps there is no one article produced in this country by the same number of laborers, which contributes so much to the commerce and prosperity of the country, as the article of turpentine.—*Newbernian*.

5.—IRON AND RAILROADS IN TENNESSEE.

Mr. Morgan, in his report to the legislature, estimates the capital employed in the business at \$4,100,000, and the annual products at the same amount. Three-fourths of this capital is employed in Middle Tennessee, and would contribute to the support of the Nashville and Chattanooga railroad. On the Cumberland river, near Nashville, there are "21 blast furnaces, 11 forges, and 3 splendid rolling-mills, which yield annually about \$800,000." On the Tennessee river, "there are 12 furnaces and 8 forges and bloomeries, which produce about 180,000 tons annually." East Tennessee is particularly rich in iron ore, water power, and fuel of every kind. At present, the products of their mines and furnaces are carried down the Tennessee, over the Muscle shoals, thence to the Ohio, and up that river to Pittsburgh, where they are manufactured and returned to the South for consumption! At Chattanooga we are informed that pig iron can now be purchased for \$13 per ton, while it commands in Savannah something like \$27. The moment the Georgia improvements reach the Tennessee, the whole trade of the country bordering upon that river and its tributaries above Chattanooga, will be turned toward the Atlantic. The iron, the corn, the flour, the fruit, the tobacco, the hemp, and the thousand other products of that region will swell the trade of our State works to at least double, perhaps tenfold, what it is at present. Iron, for instance, could then be brought from Chattanooga to Macon, commissions included, for about the same freight now paid from Savannah, say 30 cents per cwt., which would give it to the people of Macon and the planters of Middle Georgia at a little over two-thirds the price now paid.

According to an able letter addressed by V. K. Stevenson, Esq., to the Hon. John C. Calhoun, we are surprised to learn that the agricultural products of Tennessee are in value, equal to \$57,551,820; while those of Ohio, are only \$57,699,394; and of New York, \$57,685,400; showing Tennessee to be the third State in the Union in productive wealth. According to the same authority, the annual value of all kinds of agricultural and manufactured articles produced in the immediate vicinity of the proposed railroad between Chattanooga and Nashville, amounts to \$12,642,576. And yet in the items enumerated, we find Mr. S. has entirely omitted the article of wheat, of which Tennessee produces 8,340,000 bushels per year—nearly one-half of which is grown in the Cumberland valley.*

6.—RAILROAD TO TENNESSEE RIVER.

It is estimated that the income of the road the present year, will be something like \$75,000; and a gentleman who is familiar with the trade of the Tennessee river, informs me that he can prove that this income will reach \$250,000, the first year after the road is completed to the river, whether at Chattanooga, or any other point. He has recently been on a tour through Middle Tennessee, and has conversed extensively with the capitalists there, and assures me there will be no difficulty in raising the \$3,000,000 necessary for the completion of the road to Nashville. Roads are also in contemplation from Nashville to Louisville, Ky., from Nashville to the mouth of the Ohio, and from Nashville, north to a point at or near the mouth of the Wabash river; thus connecting our great work with the principal improvements in the States of Tennessee, Kentucky, Indiana, Illinois, and Missouri, and opening the entire valley of the Mississippi to the Southern Atlantic ports!

But even admitting that the road should never extend a foot beyond the Tennessee, what may we not expect from the outlay of a few thousand dollars for its construction to that point?

In the first place, the Tennessee below Chattanooga, a distance of 175 miles, is navigable to the mouth of the Elk. From this point, steamboats can ascend Elk river sixty-eight miles in the direction of Nashville. The country bordering these rivers, produces from 60,000 to 75,000 bales of cotton, two-thirds of which would pass to the Atlantic markets. Above Chattanooga we have the Little Tennessee, the Holston, the Clinch, the French Broad, the Hiwassee, the Nolichucky, the Big Pigeon, and the Emory rivers, which, combined, have a navigation of over 1000 miles. The country bordering these rivers is rich in agricultural and mineral products. On the borders of the streams are some twenty-seven furnaces, the iron from which has hitherto been transported all the way to Pittsburgh, at an immense cost. The trade from all this region, in case the road were completed,

* Macon Journal and Messenger.

would at once force its way to the Atlantic ports. Under such circumstances, who can doubt the correctness of the estimate in regard to the probable income of the work, or who would hesitate to urge forward its early completion?

7.—RAILROAD FROM TUSCALOOSA TO CHARLESTON.

A Tuscaloosa paper remarks—"There is, as we have shown, a distance of ninety miles to be overcome, between Tuscaloosa and the Coosa river, to effect an expeditious and cheap communication between the regions lying around Tuscaloosa and the seaboard at Charleston. Over this distance, we are sure a railway can be built, with a very small outlay of money. We have carefully examined into the history of railway enterprise in Europe and this country; and are warranted in saying, that the great difficulty to be encountered, is the expense arising from the crossing of very large streams, and the value of lands within the routes chosen. The ninety miles over which this railway would run, embraces portions of the counties of Tuscaloosa, Jefferson, and St. Clair. After leaving the hills lying between Tuscaloosa and Jonesboro, some forty miles, it would run over a country so level as to require scarcely any grading whatever. There are no large water courses to pass, and we venture the assertion, that the lands necessary for the purposes of the railway, would be given without one cent of assessment, so well satisfied are the inhabitants of its value to the country."

8.—SHEEP HUSBANDRY IN THE WEST.

The American Institute of New York has lately been addressing itself more particularly to wool, and we had the happiness a few days ago to be present during one of the discussions of the Farmers' Club, upon the subject. The matter presented was meagre in consequence of the absence of Mr. Fleishman, from whom much that was interesting was expected. Mr. Fleishman, under the directions of the Patent Office, collected a quantity of material in Europe, upon sheep and wool, which he informs us will, in all probability, be published very soon, either by the Patent Office, or in a volume on his own account. We examined his specimens of wool, which are most beautiful, and the various drawings of his cabinet.

The National Intelligencer and Farmers' Library have both been publishing interesting material upon sheep, as also the Cincinnati Gazette. Hitherto the North has monopolized this business, but recent experiments demonstrate that it will succeed with great profit in the Southern States. Indeed, we know a large planter in Louisiana, who realizes a sufficiency to defray the expenses of the household, from the sheep which are attended by one old woman, at no cost whatever to him—this, without regarding the value of the lambs and mutton. Indeed, there is reason for this, as there the sheep may feed out both summer and winter, and lands suitable for them exist in great abundance, and greatly less in cost than land in the Northern States. "We are informed," says the Gazette, "that some few years past attention was directed to the hills and valleys of the Ohio, in Kentucky; and on careful examination, large bodies of land were found which were but little used, of very low price, and were deemed much better suited to the business of sheep husbandry than those lands where it was most exclusively carried on, farther North. The climate was found so comparatively mild, as that the sheep would require but little or no care in winter: the soil was covered with a luxuriant growth of grass and vines nearly all the year, and protected from the winds and weather by trees." After this success, large flocks of sheep were driven there from Vermont, and lands are being constantly bought for the purpose. For these, as low as \$2 an acre have been paid, the lands abandoned at the North being sold for \$25 or \$30 per acre. Thus is Ohio likely to become a great wool-growing region.

9.—FORESTS.

From the Edinburgh New Philosophical Journal.

In general, the deciduous or hard-wood trees prevail on intervale ground, fertile uplands, and the flanks and summits of stately and trapean hills; while swamps, the less fertile, and lightest upland soils and granite hills are chiefly occupied by coniferous trees. These woods perish by the axe and by fire. Forest fires have not been confined to the period of European occupation. Indian traditions tell of extensive ancient conflagrations. In dry weather, the mossy vegetable soil much resembles peat, burns easily and rapidly—and on this depends the

propagation of fires, in a great measure—the only exception being when the burning of groves of the resinous coniferous trees is assisted by winds, causing the flames to stream through their tops more rapidly than it can pass along the ground. In such cases, some of the grandest scenes ever shown by forests occur. Swamp tracts are more secure from fire. In old forests, when the trees have attained great age—are beginning to decay—much moss grown—much dead wood and dry wood—they are more readily destroyed by fire. And we should regard fires arising from natural or accidental causes, as the ordinary and natural agents for the removal of worn-out forests. The great fire of 1825, near the river Miramichi, in New Brunswick, devastated a region of 100 miles long by 50 broad; many persons and cattle, and innumerable wild animals perished in that conflagration. Such fires leave scorched trees, which soon furnish food for other fires, and ultimately there is what is termed a barren. Such is the fate of large districts in Nova Scotia and the neighboring provinces. Mr. Smith, Secretary of the Board of Agriculture of Nova Scotia, says: If an acre or two be cut down in the midst of a forest, and then neglected, it will soon be occupied by a growth similar to that cut down; but when all the timber, or tracts of great size, are killed by fires (except certain parts of swamps), a very different growth springs up—at first, a great number of herbs and shrubs, which did not grow on the land when covered with forest. The turfy coat of the land, filled with the decaying fibres of the roots and plants of the forest, now all killed by the fire, becomes a kind of hot-bed, and seeds which had lain dormant for centuries, spring up and flourish in the mellow soil. On the most barren portions, the blue berry appears almost everywhere. Great fields of red raspberries, and fire-weed or French willow, spring up along the edges of the beach and hemlock land, and abundance of red-berried elder and wild red cherry appear soon after. But in a few years, the raspberries and most of the herbage disappear, and are followed by a growth of firs, white and yellow birch and poplar. When a succession of fires have occurred, small shrubs occupy the barren; the kalmia or sheep-poison being most abundant, in the course of ten or twelve years forms so much turf that a thicket of small alder begins to grow, under the shelter of which, fir, spruce, harnetac (larch), and white birch spring up. When the ground is thoroughly shaded by a thicket 25 feet high, *the species which originally occupied the ground begins to prevail!* and to suffocate the wood which sheltered it. And within sixty years this land will generally be covered with the young growth of the same kind *it produced of old!* Mr. Dawson attributes to birds the rapid distribution of the seeds of edible plants of all sorts.

After various growths the ancient forest is renewed; trees of the longest growth prevail over all others. Animals are adapted to all their changes—some species disappear before cultivation, others increase with it.

10.—SEA ISLAND COTTON.

This finest of all the varieties of cotton cultivated in the world, it is known, is almost exclusively the product of the islands which stretch along the coast between Charleston and Savannah. The Hon. Whitmarsh Seabrook, in an essay or memoir lately prepared upon the subject, as an appendix to his valuable paper some years ago, examines its history, cultivation, trade, &c.

“The long-staple or black-seed cotton is cultivated in South Carolina to the distance of about thirty miles from the ocean. Of the raw material there are three distinct qualities, designated in the markets as Sea islands, Mains, and Santees. The first, a pound of the finest of which, manufactured into the finest lace, is now worth from 8 to 15 guineas, and has been sold as high as 100 guineas, is the most valuable grown in any part of the world for exportation. Of descriptions of the plant reared on the sea-shore, the number is probably much greater than any examinations have yet disclosed. At present we are acquainted with only ten or fifteen varieties. These are distinguishable by certain criteria well known to the observant cultivator, but frequently the eye, unguided by the lights of botany, is unable to detect a difference, until the harvest itself shows the existence of perhaps a very material one. Invariably, fecundity in the plant is counterbalanced by defectiveness in the quality of the fruit; on the contrary, the better the fibre, the smaller is the harvest. This is in conformity with the wisdom of Nature as displayed in all her works. From analogical reasoning alone it may indeed be inferred, that our continued efforts to discover a plant, combining productiveness with superiority of staple, in as high a degree as these properties are separately found in many species of cotton, are utterly hopeless.

"From the time when long cotton was first introduced into this State, to within a recent date, its cultivation was decidedly profitable. Now legal interest on the capital of the grower is rarely ever realized. From 1821 to 1830 inclusive, the aggregate crop was 107,294,930 lbs. In the ten succeeding years it was only 79,041,596 lbs., being a deficit of 28,253,334 lbs. The average annual product from 1805 to 1817, a period of nine years, excluding the four years of the embargo and the war, was greater by 797,033 lbs. than it has been for the last nine years, or since 1832. Although the number of acres at this time in tillth cannot with accuracy be stated, yet it is believed that it is at least one-third greater than it was in 1820, or twice that of 1804. Under the operation, therefore, of decreased and decreasing exports, with a vast augmented population in every part of the world—extraordinary improvements in machinery—greater skill and cheapness in spinning and weaving—lower duties on the importation, and the superior properties of the kinds at present raised, the value of long staple cotton is less now than it was thirty-five years ago.

"Until lately, the sea island crop has been confined exclusively to high grounds, as contradistinguished from the marshes. The sagacity and perseverance of two members of the Agricultural Society of St. John's, Colleton, have been instrumental in effecting a change on this head, the ultimate consequences of which it is not easy to predict. There is no soil in South Carolina, if sown in long cotton, that will yield more money in a series of years, than those immense tracts which lie about the points where the salt and fresh waters meet. Nearer to the ocean, the land is low, intersected by numerous small creeks, and too salt for immediate use. Above the line, the total absence of saline ingredients renders the ground fitter for grain, especially rice, than cotton. Of the kind just noticed, there are thousands of acres in the parishes washed by the Atlantic, which to their owners are now barren wastes. This is the great prairie region of the lower country, capable of itself, from its inexhaustible fertility, of producing as much fine cotton as the demands of trade will probably require for a quarter of a century. As these marshes are very level, numerous ditches are required. If this work be faithfully done, such is the richness of the soil, that whether grown on beds or not, the crop, even the first year, will abundantly repay the labors of the cultivator.

"Within three years, other agents than that of human power have been resorted to in separating the seed from cotton. At this time a few planters still depend on the common treadle-gin, but the propeller is steam; others use another machine, distinguishable from the foot-gin chiefly in the length of the roller, to which steam or horse-power is applied. The former produces only about twice the quantity of cotton as the treadle gin when the human foot is employed. Its advantages, therefore, when the outlay and incidental expenses are brought to view, are inconsiderable. The latter gives generally about 200 lbs. per day. On the debit side the items do not subtract materially from the interest of the capital employed. The objections to Farris' gin are: first, that it works irregularly, and that unless the adjustment of the parts to the whole be entirely true, no calculations as to its performance can be made; and, secondly, that from the rapidity of the motion, which, for a profitable daily yield, must be kept up, the staple of the cotton is injured. The first disadvantage is undeniably a strong one, but the last is at least problematical. Steam applied to Farris' gin has so far afforded more satisfaction than any other scheme of accomplishing the object of the planter yet tried. It is, however, certain, that a machine for detaching the seed from sea island cotton, without impairing some of its valuable properties, is still a desideratum; and as large expenditures of money and labor have been fruitlessly made in this and other countries to attain an end so desirable to the grower, the task may be pronounced embarrassing and full of difficulties. If, nevertheless, the labor of ginning cotton cannot be essentially abridged, mechanical aid could and ought to be made subservient to the preparing of it for the gin, for the bag, and for packing it. In reference to the last operation, why is not the screw used? This mechanical agent is equal to the power of about twenty men; in other words, with one boy and a mule, it can do in a day as much as twenty men can accomplish in the same time with the pestle. As the pressure of the screw is equal and regular, no damage whatever to the staple can ensue from its action; on the contrary, the repeated blows of the pestle, always of a wedge-like shape, must in some degree operate injuriously. As it is believed that the ship-owners give a decided preference to the square over the round bale, if there be no weighty objections on the part of the manufacturer, which can easily be ascertained, the

planter would consult his interest by substituting the screw for the present clamp instrument for packing cotton."

EXPORTS SEA ISLAND COTTON, FROM 1805 TO 1842.*

Year.	Quantity.	Year.	Quantity.	
1805	8,787,659 lbs.	1813	4,134,849 lbs.	} War.
1806	6,096,092	1814	2,520,388	
1807	8,926,011	1815	7,449,951	
1808	949,051—Embargo.	1816	9,900,326	
1809	8,664,213	1817	8,101,880	
1810	8,604,078	1818	3,080,838	} From S. C. only.
1811	8,029,576	1819	3,442,186	
1812	4,367,806—War.	1820	6,020,101	

Year.	Quantity.	Price.	Average.
1821	11,344,066	12½ to 30d.	21½d.
1822	11,250,635	10 to 28d.	19
1823	12,136,688	11 to 24d.	17½
1824	9,525,722	11½ to 27d.	19½
1825	9,655,278	15 to 42d.	28½
1826	5,972,852	10 to 30d.	20
1827	15,140,798	9½ to 20d.	14½
1828	11,288,419	10 to 22d.	16
1829	12,833,307	9 to 21d.	15
1830	8,147,165	11½ to 20d.	16
1831	8,311,762	9½ to 18d.	13½
1832	8,743,373	9½ to 18d.	13½
1833	11,142,987	10½ to 22d.	16½
1834	8,085,935	13½ to 26d.	19½
1835	7,752,736	14 to 33d.	24½
1836	8,554,419	14 to 36d.	25d.
1837	5,286,340	12 to 40d.	25d.
1838	7,286,340		
1839	5,107,404		
1840	8,770,669		
1841	6,400,000—20,000 bags, at 320 lbs. each.		

DOMESTIC MANUFACTURES.

I.—MANUFACTURE OF FLAX IN ENGLAND AND THE UNITED STATES.

The question having come up before the Farmers' Club, of New York, for discussion during our visit in that city, we attended. From a paper read by Mr. Meigs, it appears that there was manufactured in Ireland, in

1710	1,688,574 yards.	1820	43,613,218 yards.
1750	11,200,771 "	1825	55,113,265 "
1775	21,502,000 "	1835	60,916,592 "
1800	35,676,901 "		

Imports into the United Kingdom in 1845, from foreign countries:

Fibre.—79,424 tons, worth twenty millions of dollars.

Flax Seed.—Nearly five millions of bushels, worth about twenty-seven millions of dollars.

Oil Cake.—85,890 tons, worth over three millions of dollars.

Total.—Fifty millions of dollars.

Previous to 1825, linen was made from hand-spun yarn. In 1839, there were in operation forty flax spinning-mills, using steam power of about two thousand horses.

In the United Kingdom, there were, in 1845, 414 linen factories, of 12,000 horse power, 48,000 persons, and capital sixty millions of dollars. Three mills consume annually 110,000 tons of flax.

* Those of subsequent years will be given hereafter. For other valuable information on the subject, see Commercial Review, vol. 1, 1846.

ROCKY MOUNTAIN FLAX.

"Mr. Parker in his excellent narrative of his journey across the Rocky mountains, from the Mississippi to the Pacific, says, 'Flax is a spontaneous production of this country. In everything, except that it is perennial, it resembles the flax that is cultivated in the United States—the stalk, the boll, the seed, the blue flower, closed in the daytime and open in the evening and morning. The Indians use it in making fishing nets. Fields of this flax might be managed by the husbandman in the same manner as meadows for hay. It would need to be mowed like grass; for the roots are too large, and run too deep in the earth, to be pulled as ours is; and an advantage that this would have is, that there would be a saving of plowing and sowing.' This was on a branch of Lewi, or Snake river of the Columbia."

2.—MANUFACTURE OF PAPER IN THE UNITED STATES.

We have, on a previous occasion, adverted to the importance of this branch of our industry, so rapidly being carried to perfection in our country. In 1846, the capital employed in the manufacture was estimated at \$18,000,000. There were 700 mills, producing annually \$17,000,000 in paper, and employing 100,000 persons of all ages. Cost of stock used, viz., rags, old rope, waste cotton, etc., \$8,000,000, without reference to the quantity of soda, pearl and pot-ash, coloring matter, coal, iron, wood, oil, sizing, etc., valued at \$2,000,000 more. Wages of workmen in the business, \$6 to \$9 per week.

In reference to writing paper, Mr. Cist, of Cincinnati, publishes some curious particulars:

Cap, as applied to paper, is of modern use entirely, at least in certain parts of the United States. Not more than 30 years since I was familiar with the phrase foolscap, and I distinctly recollect how "cap," its abbreviation, grated on my ear, upon first hearing it, as much so as "pike," for turnpike, does yet.

The question is thus shifted to what is the origin of the phrase foolscap, as applied to writing paper, which has borne this name so long, that its origin is lost to most persons.

The kings of England, from Edward I., if not earlier, granted various monopolies, either for the support of the government, or to enrich favorites. One of these was the exclusive right to manufacture paper granted by the first Charles. On the finer kinds, as a species of notice of the monopoly, the royal arms of England formed the water-mark. Vast sums were of course made upon this exclusive privilege to make and vend an article in such general use.

All these monopolies were swept away by the parliament which brought Charles to the scaffold; and in this particular case, by way of showing their contempt for the monarch, they directed the royal arms to be taken from the paper, as they had already been from sign-posts, public halls, &c., substituting a fool, with his cap and bells, as the effigy. This was done in 1649.

Most of the manuscripts written between that period and 1660 bear, accordingly, as a water-mark, a fool wearing the dress described as his costume in the court of the British monarchs. Cromwell, when made Lord Protector, changed the water-mark by substituting a dragon, grasping in his claws arrows of fire, and afterwards putting his coat of arms in its place. This still occasionally appears.

Charles II., at the Restoration, replaced the royal arms, and enlarged the size of the sheet, which was much smaller than we see in modern days.

In England, paper of the size which the Rump Parliament ordered for their journals, bearing the foolscap effigy, is still in existence; and the title, as in many other things, is still retained for ordinary writing-paper, centuries after the reason for it has ceased, and now serves, as it will serve for ages, to designate all writing paper in ordinary use, as distinguished from paper designed to be folded in the form of letters.

This last class of writing paper has been reduced greatly in length and widened somewhat to adapt it for a convenient shape in folding, and still bears its original name of post paper, applied to it from the mail or post by which letters were conveyed to their address.

So recently has the United States made its own paper, that most of our early letters written in the West, even as late as 1800, bear the impress of the royal arms. St. Clair, Harmar, Wilkinson, and Wayne's letters are all of this description.

PROFESSORSHIP OF PUBLIC ECONOMY, COMMERCE AND STATISTICS IN THE UNIVERSITY OF LOUISIANA.

THIS important department of education in our country, so much neglected in the past among us, as among others more favorably situated, first advocated in our Review in May, 1846, in an article on "Louisiana;" afterward in November, in an article in New Orleans, and elaborately in June—July, 1847; having met with high commendation in different sections of the Union, and the decided approbation of the most practical minds, as well as of many members of the Board of Administrators, with whom we have conversed—we concluded the past summer, during our stay at the North, to collect everything that could be of interest, or bear upon the subject. It is with regard to that space does not admit us to introduce any of this *now*. We have, however, thought it proper in view of some immediate action, perhaps, in the matter, to re-publish at least the plan of the Professorship, and the objects intended to be embraced. The catalogue of a library we have made more complete, but omit.

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Text-Books for the Course among others:

Locke's Essays on Government; Lieber's Political Ethics and Hermeneutics, Montesquieu's Spirit of Laws; Smith's Wealth of Nations; McCulloch's Commercial and Geographical Dictionary; Say's Political Economy; Vethake's Political Economy; Carey on Wealth; Stephen's Progress of Discovery and Maritime Commerce; Heron's Commercial Researches; Vincent's Commerce of the Ancients; McGregory's Commercial Legislation; Annual Reports American and Contemporary Governments.

It should be required from the professorship to prepare and deliver twelve public lectures each year, free to every one, upon subjects determined in its organization. For example, upon the "*Sources of National Wealth and Decline*;" on the "*History and Progress of Commerce*;" on the "*Foreign Commercial Relations of the United States, including our Treaties*;" upon "*Finance*;" on the "*Results of Agriculture and the Advancement of Agricultural Classes*;" on "*Manufactures*;" the "*Science of Statistics*;" the "*Geography of Commerce*;" the "*Commodities of Commerce*;" the "*Literature of Commerce*," etc., etc. The lectures to be of a practical character, and perhaps published eventually, under the auspices of the University, as one of its text-books, and as a work to be prized and consulted in every part of the Union. Such a volume prepared with all the light afforded in the libraries and collections of the University would be complete.

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and exhibited from time to time their complete

STATISTICS,

in such a manner as could not but have secured the best results. The papers which have appeared upon SUGAR and upon COTTON, upon TOBACCO and RICE, and MANUFACTURES, upon THE PROGRESS OF OUR COMMERCIAL RELATIONS with all nations, and upon MEXICO, may be stated as examples. Indeed, this has been admitted from many sources. Although devoted in its aims to the development and exhibition of the

Resources of the South and West,
the Commercial Review neglects no view of

American and European Industry and Enterprise,

in every department, and must be of equal value to AMERICAN CITIZENS wherever they are found. Is there a section of the union, too, or an interest which has no concern with the progress and resources of the GREAT WEST, of which the Commercial Review is the faithful exponent?

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We announced in our September number, that the reprint of this work was in progress, and have now the pleasure of announcing its completion and readiness for delivery. The style of finish and execution is admirable. As the numbers for 1846 have great value, and were much sought, and as we have not been able to furnish them for many months back to the frequent and numerous orders received, this republication must pass through a very large edition. We have had it stereotyped.

Orders for the work should be sent in without delay. It will be furnished with the utmost dispatch, and by the first opportunity; or through the mail, if requested—as the postage will not exceed 60 cents.

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COMMERCE, AGRICULTURE, AND MANUFACTURES

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THE COMMERCIAL REVIEW

OF THE
SOUTH AND WEST.

ESTABLISHED JANUARY 1, 1846.

J. D. B. DE BOW, EDITOR AND PROPRIETOR.

Volume IV.

DECEMBER, 1847.

No. 4.

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NOTE TO OUR FELLOW-CITIZENS.

WE here close FOUR VOLUMES of our REVIEW and two years. Our subscription list is already larger than that of any other work published in the South or West, and rapidly increasing. We have met with the most liberal encouragement, and have done the most we could to deserve it. We appealed to the South and West, and they heard our appeal. We have been enabled to improve and enlarge the work, and shall continue to do so, until it is larger than any other of the same price in America or in the world. We have secured able contributors, and are extending the field of action, making it interesting and valuable to every class of practical citizens, merchants, planters, manufacturers, &c., North, South, East and West. Our *commercial summaries* next year will be *monthly*, and of the highest value. *AGRICULTURE* shall be fully and efficiently represented as the wants of the South and West indicate.

The engravings of eminent merchants with biographical sketches, will be continued as often as they can be obtained. The second of the series we hope to present in January, 1848.

The monthly numbers next year will contain from 112 to 128 pages, forming semi-annual volumes of 650 to 700 pages, a very great enlargement on back volumes. Having a printing-office of our own on the most complete system, the typographical excellence of the work will be secured.

Let our subscribers stand by us, and add to our lists, in this enterprise we are conducting, the first of the kind that the South or West has ever had. These sections require and deserve such an exponent of their resources and power.

To conclude this note with a *dux*, would be in bad taste. We do not do it. If there is a year's subscription due to us by any one, we know that there is a generous sentiment in these matters, which will cause it to be *immediately remitted!* With enormous expenses and great confidence in our friends we must not be disappointed. The importance of every dollar—but we promised not to dun in this note.

THE COMMERCIAL REVIEW.

Volume IV.

DECEMBER, 1847.

No. 4.

Art. L.—SOUTHERN AND WESTERN AGRICULTURAL AND MECHANIC ASSOCIATIONS.

SOUTH CAROLINA AND LOUISIANA AGRICULTURAL SOCIETIES: PROCEEDINGS, REPORTS, ETC.—PROGRESS OF AGRICULTURE AND AGRICULTURAL KNOWLEDGE AT THE SOUTH—PAPERS UPON SUGAR MANUFACTURE—ORATIONS OF HON. P. ROST AND J. D. B. DE BOW.

THE approaching anniversary (the fifth) of the Louisiana Agricultural and Mechanics' Association, being about to be celebrated at Baton Rouge, it is a meet occasion to call attention to its merits, and present its claims to the people of Louisiana and the South-west.

It is a common complaint, founded, alas, upon too melancholy a truth, that the Southern States have been content to prosecute agriculture with little regard to system, economy, or the dictates of liberal science. •Blessed with an unusual fertility of soil, it has been erroneously deemed an ill advised economy to preserve and perpetuate that fertility. Almost any planting has been tolerated and prosecuted which could yield profitable returns for the time, without any regard to future operations. What matter if sterility come at last upon these pregnant fields?—if Virginia desert her tobacco acres?—if the Carolinas, and even Alabama, once an El Dorado, turn up an exhausted soil? Is there not an empire beyond, in the South and the West, where primitive wilds may be subdued and virgin soils brought under the plow, to undergo the same routine again? We will emigrate and leave waste, if we cannot sell, those old homesteads and acres from which, as a mint, our fathers, or even their sons, in days not long removed, coined gold.

Alas, how frequent have been these changes and how melancholy! What must be the reaction upon those who are compelled to undergo them? Can they feel the joys of HOME when all is so uncertain? Why beautify those grounds, why develop gardens and orchards, and arrange shading oaks? Will not a rude axe to-morrow be applied to them all when their proprietor has abandoned them for some new conquest? Without the joys and comforts, without the associations of HOME, the virtues do not thrive. No man can be a patriot,

or a good citizen, where he is sojourning but for a short season and looking daily for emigration. That surety of our country's liberties, that bond which holds together its Constitution, is gone forever when we annihilate *State love* and its strong, fixed, and ardent concomitants.

We believe a great remedy for this mournful state of things is to be found in a discreet and enlightened administration of the soil, and the co-operation and labors of those engaged in agricultural pursuits throughout these regions, by societies and publications and occasional re-unions.

Our friends in South Carolina appear to be more deeply impressed with these truths now than the citizens of any other Southern State. They have numerous District Associations, of high character, and a State Society, which meets semi-annually in the interior, or the mountains, and where addresses are delivered by such men as the Hon. Mr. McDuffie, Mitchel King, Mr. Poinsett, Judge O'Neill, Whitmarsh Seabrook, Governor Hammond, etc. The Hon. John C. Calhoun was invited to deliver the last. There are also discussions and reports of great scientific and practical value, and some of the fairs we have attended did great credit to the Association. A department of agriculture has been organized in the College of South Carolina, and the State has appropriated a handsome sum for the publication of agricultural documents, after having had a geological survey. We have all these valuable publications before us on the table.

In 1784 the first agricultural society of South Carolina was formed, which exists to the present day. In 1823 there were eleven societies in the State—the South Carolina, the Pendleton, the Edgefield, the Barnwell, the St. John Colleton, the St. Helena, the Beaufort, the Beaufort District, the St. Andrews, the St. Pauls and the Winyah. In 1826 the St. Johns Society invited a convention of all these bodies, which was held in Charleston. In 1827, from the result of this movement, the United Agricultural Society was organized at Columbia. This Association not being productive of the desired results, in 1839 a convention, at Columbia, formed the STATE SOCIETY.

"In perusing," says Mr. Carroll, in his preface to the valuable volume of Carolina Agricultural Reports and Publications,* 1847, "the able documents embraced in this volume, it will doubtless be impressed upon the reader's mind, that South Carolina, though one of the earliest cultivated colonies of the Union, and though the pursuits of its people have been essentially agricultural, yet such is the impoverishment of some of its best lands, that all the helps of science, skill, and industry, are required to save them from barrenness, and to restrain her people from that spirit of emigration which is every day depopulating many portions of the State. Engaged, as four-fifths of her population are, in agriculture; deriving nine-tenths of her treasure from the taxation of our planters; raising, as she does, one twenty-fourth part of all the cotton in the world; producing, too, one-seventh of all the exports of the Union; and paying into the national treasury one million of dollars more than all the New England States put together, it cer-

* Among the papers, &c., in this volume, are the Proceedings of the Society, 1840-45; Orations of Messrs. McDuffie and Seabrook; Essay on Malaria, by Dr. Dickson; Orations of Hammond, O'Neill, Roper, and Poinsett; Memoir on Slavery, by Chancellor Harper; Seabrook on the Cotton Plant; Allston on Rice—which we have published in the last year of our Review; Letters and Reports on Marl, &c., &c., 430 pages. We wish to see the Legislature of Louisiana do this much for the State's agriculture.

tainly becomes a question of no little interest, what has been done for the advancement of our agricultural interests. With one or two exceptions legislative aid has done nothing.

"While our planters have, with great forbearance, submitted to this state of things, those of other States have been aroused, and insisting upon their claims, have secured many reforms in their agricultural condition. They have been taught to feel, with the rest of the enlightened world, that agriculture is indeed of primary importance to their political economy—that with its prosperity all other branches of industry must flourish; while with its decline they must, just as certainly, languish and decay—in a word, that agriculture is the main shaft around which commerce, and manufactures, and the arts, all cluster, and by which they are sustained in vitality and strength. What, therefore, other States have acted upon, and prosperously consummated, is neither policy nor wisdom for South Carolina to neglect."

In Louisiana, whose resources and progress have been extraordinary, it is scarcely credible how little interest has been taken in the subject of scientific agriculture. Accounts on all hands are agreed that, until within a few years, the rudest systems of tillage were in use, and the most wasteful. Even now it is difficult to convince the planters, as a body, that they have anything to do out of the usual routine. There is not, we believe, at this time, a single Parish Agricultural Society in the State, and but a single Society of any sort addressed to these interests! It is almost impossible to induce the planters to attend even this, *a central and general institution*, so remarkable is the apathy which prevails. That there are noble exceptions we admit, but why should not this be a matter of *universal* interest? Surely a little reflection will satisfy any one of the great blessings which may be conferred by these bodies upon a Commonwealth. Whence the extraordinary attention paid to agriculture in Europe? We have hundreds of ponderous volumes of Reports from England and France,* and Russia, which some of us have been wont to call barbarian, has sent a letter to us inviting our agriculturists to co-operate with them in developing the soil. It is but the other day that we were called upon, individually, to furnish the Russian Society with a paper upon tobacco. Consider, too, the results in our own country. The Government is collecting material of this kind, and publishing through the Patent Office.† The State of Massachusetts publishes, at its own expense, an annual volume of several hundred pages, including the Reports, &c., of all District Societies.‡ In New York State they have a great Association, which meets at Albany; and in the city of New York, every two weeks, is convened the FARMERS' CLUB, of practical and scientific men, who discuss important subjects of agriculture. Having attended several of these meetings, we know their value. We heard discussions on silk, wool, sheep, hemp, etc., etc. There is an annual magnificent Fair of the AMERICAN INSTITUTE, of which the Club is a part, held in New York, and attended by hundreds and thousands of visitors.

* Mr. Vattermare, whose philanthropic mission among nations in inducing exchanges of valuable documents has excited so much attention, presented us, when in New York, with a large number of works of this kind, relating to France, for the State of Louisiana. Through the same means we can get them all, if willing to reciprocate.

† We lately saw his circular to Texas.

‡ We have one of these before us, 200 pages, 1846. It contains an abstract of the proceedings, reports, &c., of ten societies in the State, with extracts from the chief addresses, &c. It is thus that nothing is neglected or lost in Massachusetts.

The published volumes of Reports are worthy of all praise and preservation.*

It is now five or six years since the Agriculturists' and Mechanics' Association of Louisiana was organized at Baton Rouge, where it has met from year to year for public celebrations. The attendance, though respectable, has never been large. The exhibition and Fair have never been worthy of the State. However, we are inclined to hope much better results hereafter. Experience has been of service—energetic officers have been secured, and the State, by an appropriation, has manifested an interest in the matter. Let us indeed hope that the liberal and enlightened planters of Louisiana are now awake.

The removal of the seat of government to Baton Rouge makes that town a place peculiarly fitted for the meeting of the Institute. It should secure a permanent Hall in the new State-house being constructed, and a permanent *salaried* Secretary. There should be a library like that of the American Institute, containing all agricultural and mechanical publications, etc. A traveling agent should be appointed. An annual appropriation might be secured from the legislature in furtherance of the work.

But nothing of this kind can be effected without the establishment of *parish* or *district societies*. These are indispensable. Any three or five planters are sufficient to establish one. The monthly meetings will soon have interest to attract others, and thus a valuable system will grow up. These societies will send annually their reports and delegates to the central one. Shall it be asked, how these local societies are to be employed? We will show at a glance.

The Central Society should issue to all the local ones, and to indi-

* We make no reference to the high *protection* notions of the Institute. "This Institute has now been laboring for a period of eighteen years in advancing the cause of practical Science throughout the United States, and your memorialists have the gratification to know that their exertions have not been unavailing, and neither have their services for the public good been unacknowledged by those who were more deeply interested in them, or more particularly conversant with the results."—We extract from their memorial of 1846 to the Legislature, page 7. "The Institute, unaided and unsustained, except by its own energy, had a number of visitors at its last fair, said to be one-half as great as that of the great Fair of Paris, which is held *but once in five years*—and to which the French Government lends its powerful aid, by causing the whole kingdom to be examined by commissioners, for the selection of the most interesting articles for the exhibition, and *paying their transportation to Paris*. The number of citizens who visited the last Fair of the Institute was about *two hundred and fifty thousand*, while Paris contains about *three times* the population of New York. Niblo's Garden is engaged for the central exhibition. Fields of the plowing and sowing matches will be selected, as conveniently as possible, for all classes of citizen visitors."—Proceedings of the Louisiana Society, 1846, page 5. "The 'Royal Agricultural Society' of England met at the Society's House, Hanover Square, London, 21st of May, 1845—Duke of Richmond, President. One of the points to which the Society's attention had been directed for the last half year, was a *chemical analysis of the ashes of plants grown on different soils, and in different localities throughout the kingdom*. The Society now consists of 96 life-governors, 204 annual governors, 495 life-members, and 6,123 annual members, making a total of 6,933 members. It appears from the statement of arrears, that on the 1st day of the present month, 35 governors and 2,251 members were in arrears of subscription, the sum amounting to £5,730; that at the general meeting in December last, the amount of such arrears stood at £6,600, a reduction of £879 having been effected during the last six months. The present amount of capital invested is £8,200—a purchase of £700 stock in the 3½ per cent. having been made during the last month. The current cash balance in the hands of the Society's bankers at the present time is £2,038, not including the sum of £1,600 contributed by the town of Shrewsbury toward the expense of the ensuing country meeting, and already paid over to the credit of the Society's account."—We quote from Farmer's Library, page 6, Proceedings of Louisiana Society, 1846, note by Mr. Thorpe.

viduals throughout the State, a circular similar to that issued by the South Carolina Society—requiring

1st. An account of the present condition of agriculture, and the changes since the first settlement of the county or parish.

2d. The general aspect of the parish, embracing the nature of the soil.

3d. The principal products.

4th. The kinds of cultivation or tillage in use.

5th. The favorite breeds of horses, mules, cattle, sheep and swine, and their management.

6th. The agricultural implements in use.

7th. The general value of land.

8th. The agricultural changes necessary to advance the prosperity of the parish.

It is hardly necessary to insist how much Louisiana has to gain by these operations, and what will be secured her by her successes. Let us emulate our sister State of Massachusetts in this. She collects and embodies minutely *all* the statistics of her varied and expanding industry, and publishes them, that every citizen may understand.

We have said nothing of the *mechanical department* of the Institute. We are doubtful here whether Baton Rouge will prove the proper place. The two departments may be separated to advantage, so far as the place of exhibition is concerned. NEW ORLEANS, the great city of the South and West, presents itself at once. Here the products of the ingenuity, the skill, the manufactures of all the Valley and the South, may be brought annually and presented for inspection. It should occupy a place for these regions like New York. The city is peculiarly fitted for the purpose. In the immediate vicinity of Texas, Mexico and Cuba, it must shed the broadest influences over them. We regard this as something worthy of future reflection. The day will yet come when what we have written shall appear prophecy. However, it will take time. The first step has been made in the establishment of the UNIVERSITY OF NEW ORLEANS.

We have not the data for other Southern States, and therefore cannot say what they are doing for agriculture. Will not their citizens favor us with abstract reports? We read the other day a partial geological survey of Alabama, and understand that something of the kind is mooted in Mississippi; indeed, that an agricultural professorship in one of her colleges is talked of. But unless this is an institution for the whole State, and under its patronage, the professorship will be of little service. Mississippi will not be behindhand in this race. She has many distinguished agriculturists, as we know.

Space will not admit a farther indulgence of these reflections. Our object was simply to call attention to the approaching Baton Rouge meeting, which it is to be hoped will be the most brilliant yet held in the State.

The following is the list of officers appointed in 1847:

COLONEL PHILIP HICKEY, *President.*

Vice Presidents.

J. Cooper, East Baton Rouge,
Valcour Aimé, St. James,
C. Adams, Iberville,

Judge Campbell, Opelousas,
Dr. Peck, Washita,
D. J. Porche, Nachitoches,

D. J. Fluker, East Feliciana,
B. Richardson, St. Tammany,
Gen. Ed. Sparrow, Concordia,
Gen. J. P. Walker, Rapides,
Miles Taylor, Lafourche Int.,

P. A. Rost, German Coast,
Verloin De Gruy, Jefferson,
B. M. Norman, New Orleans,
W. Taylor, Point Coupée,
Maunsel White, Plaquemines

Stephen Henderson, *Treasurer.*

T. B. R. Hatch, *Cor. Secretary.*

Executive Committee.—S. Henderson, chairman; J. McVay, James McCalop, D. Chambers, G. A. Pike, W. A. Tunnard, C. G. McHatton, F. D. Conrad, T. B. R. Hatch, S. Allain, A. G. Carter, J. B. Kleinpeter.

From the report of proceedings of 1847 we extract the three following letters in relation to sugar, which will be read with interest. Only a very few copies of the report were printed, and scarcely at all circulated. On this account we publish.

VALCOUR AIME'S RESULTS IN SUGAR CULTURE AND MANUFACTURE.

Mr. Valcour Aimé, sends for exhibition to the fair of the Agricultural and Mechanics' Association the following described specimens of sugar manufactured on his own plantation:

A loaf of sugar, first product, made directly from the cane-juice.

A box powdered sugar, first product.

One do. second product, liquored.

One do. do. not liquored.

One do. third product, liquored with molasses.

A bottle of syrup for liquoring sugar, weighing 36 degrees by Baumes' saccharometer.

A small specimen of rough or unrefined sugar from cane-juice.

These products have been obtained by means of the apparatus of Derosné & Cail, made by Messrs. Stillman, Allen and Co. of New York, with some modifications of the plan first adopted by the inventor. These modifications principally consist in some changes in the distributors, in the form of the vacuum kettles, and above all in the strength of the air-pumps.

This apparatus was received at the plantation of Mr. Valcour Aimé in 1846, too late to be put into operation for the taking off the preceding crop. The air-pump as first made was too weak, and it was found necessary to make another.

The Agricultural and Mechanics' Association has been incorrectly informed by those who have induced the society to publish in the annual report of 1846, that the first cost of the apparatus amounted to \$22,000, and that the contract for the modifications to be added, would amount to \$8,000. The apparatus as it at present stands, cost \$24,000. By it eighteen hogsheads of sugar can be made in twenty-four hours, and the whole of his last crop has been manufactured in this manner.

Mr. Valcour Aimé being neither a speculator nor a manufacturer of machines, does not persuade any one that the apparatus he has adopted is the best that can be made. His only wish is, that exhibiting these specimens to the inspection of the Sugar Planters, they may be enabled to compare them with those made by other processes, and thereby augment the mass of knowledge among the sugar producing class. These specimens have not been specially prepared for the fair. He has chosen them as far as possible with a view to give an idea of his average crop.

He abstains from furnishing any comparative tables, to show the number of thousands of dollars that can be gained on a crop by making use of this apparatus, and he advises the society not to grant the sanction of its name to any tables of this kind, but after the most severe and minute examination. Experience has demonstrated that these tables cannot be depended on, unless they are the results of conscientious and disinterested essays, repeated during several years. He will merely state, that he believes he has a knowledge of all the machines which have been erected in Louisiana for several years past, for the purpose of improving the manufacture of sugar, and he thinks the results obtained by the apparatus that he has had erected, are at least equal to any other, and that the planters that can afford the expense, would ever be gainers by erecting similar ones.

He believes that the economy in fuel and the increased price of the products will justify the expense, notwithstanding its being very great. He is, however, convinced that the disbursements can be covered by the difference in the price of the first, or even of the second crop.

He regrets not being able to add to the other specimens sent a greater quantity of common or rough sugar, manufactured by his apparatus. Sugar inferior to the sample sent, and which he merely had kept to compare by it, was sold at 7½ cents.

Mr. Valcour Aimé thinks it his duty to add, that the apparatus of Rillieux, which he constructed on the same principles as that of Derosné & Cail, will, in his opinion, produce the same results. The expense of putting up either is about the same.

The Agricultural and Mechanics' Association has certainly been led into error, in stating in the report of last year that the negroes employed on a plantation can conduct these machines *without the assistance of a sugar-maker*, and that the planters in the northern parishes of the State may, in using them, obtain *fine sugar from the sour juice of frozen canes*. Such an error might occasion great loss to be sustained by many planters. The apparatus of Rillieux as well as that of Derosné & Cail, is too complicated to be entrusted to negroes, without the active superintendence of an experienced sugar-maker, and a more thorough examination will convince the society, that when the cane-juice is really sour, it is impossible to make good sugar either with the one or the other apparatus.

Signed

VALCOUR AIME.

MR. LESSEP'S RESULTS.

Having a desire to ascertain the difference that might exist in the manner of making sugar by the ordinary kettles and the apparatus of Mr. Rillieux, I caused to be cut down 25 arpents of cane on the 12th of November last, which I made into sugar, and which yielded 26 hogsheads and about 73 gallons of molasses per hogshead.

Five days later I had 25 arpents more cut down in the same part of the cane field, which by the apparatus of Rillieux, yield 32 hogsheads of sugar, and 53 gallons of molasses. The average weight of the two qualities was from 1050 lbs. to 1075 net.

In order that the one mode of making sugar should have no advantage over the other, I caused these 50 arpents of cane to be cut in the following manner:

My field presents a front of 10 arpents by 5 feet in depth; I took numbers 1, 3, 5, 7, and 9 for the kettles, and Nos. 2, 4, 6, 8, and 10 for the apparatus of Mr. Rillieux.

On my plantation at Poverty Point, I had 66 hogsheads of sugar on the cistern; with the molasses which drained from the same, I obtained about 22 hogsheads of sugar by a second operation.

MAUNSEL WHITE'S SUGAR.

GENTLEMEN:—I am enabled, through the kindness of Col. MAUNSEL WHITE, to present to you for exhibition at the State Agricultural Fair, now being held in this city, a sample of sugar from his plantation. He has instructed me to say to you, that though prevented by the nature of his occupations from being present, he feels the deepest interest in the cause in which you are engaged, and will be happy to subscribe toward the encouragement of everything useful and laudable in arts and husbandry submitted to your Committee.

I have the honor to remain, gentlemen,

Your obedient servant.

JOHN BURKE.

The committee on sugar, in 1846, made a valuable report, from which the following is extracted:

PRODUCTION OF SUGAR ON THE NEW AND OLD SYSTEMS.

1st. Old Lands—Forty gallons of Molasses per 1000 lbs. of Sugar.

Receipts.	Common kettles.	Apparatus (rough sugar).	Apparatus (liqueured do.).
First Sugar.....	1000 lbs., at 5 cts. ... \$50 00	1000 lbs., at 7½ cts. ... \$77 50	710 lbs., at 10½ cts. ... \$74 55
Second Sugar.....	.....	300 lbs., at 6 cts. ... 18 00	365 lbs., at 8 cts. ... 29 20
Cistern's Bottom.....	100 lbs., at 2½ cts. ... 2 50	.....	.....
Molasses.....	40 gals., at 15 cts. ... 6 00	15 gals., at 15 cts. ... 2 25	44 gals., at 25 cts. ... 11 00
Expenses.			
Wood.....	58 50	97 75	113 25
Wood.....	3 cords, at \$1 50... 4 50	1 cord..... \$1 50	1 cord..... \$1 50
Bone Black.....	.....	25 lbs., at 2½c. ... 62 - 2 12	25 lbs., at 2½c. ... 62 - 2 12
Net proceed on 1000 lbs.	54 00	95 63	111 24
Crop of 600,000 lbs.	\$32,400 00	\$57,378 00	\$67,088 00

2d. Ordinary Lands—Fifty gallons of Molasses per 1000 lbs. of Sugar.

Receipts.	Common kettles.	Apparatus (rough sugar).	Apparatus (liqueured do.).
First Sugar.....	1000 lbs., at 5 cts. ... \$50 00	1040 lbs., at 7½ cts. ... \$83 70	750 lbs., at 10½ cts. ... \$78 75
Second Sugar.....	.....	300 lbs., at 6 cts. ... 18 00	375 lbs., at 8 cts. ... 30 00
Cistern's Bottom.....	100 lbs., at 2½ cts. ... 2 50	.....	.....
Molasses.....	50 gals., at 15 cts. ... 7 50	15 gals., at 15 cts. ... 2 25	47 gals., at 25 cts. ... 11 75
Expenses.			
Wood.....	60 00	103 85	120 30
Wood.....	3 cords, at \$1 50... 4 50	1 cord..... \$1 50	1 cord..... \$1 50
Bone black.....	.....	25 lbs., at 2½c. ... 62 - 2 12	25 lbs., at 2½c. ... 62 - 2 12
Net proceed on 1000 lbs.	55 50	101 83	116 45
Crop of 600,000 lbs.	\$33,300 00	\$61,098 00	\$71,028 00

3d. New Lands—Sixty gallons of Molasses per 1000 lbs. of Sugar.

Receipts.	Common kettles.	Apparatus (rough sugar).	Apparatus (liqueured do.).
First Sugar.....	1000 lbs., at 5 cts. ... \$50 00	1160 lbs., at 7½ cts. ... \$89 80	790 lbs., at 10½ cts. ... \$82 65
Second Sugar.....	.....	300 lbs., at 6 cts. ... 18 00	385 lbs., at 8 cts. ... 31 00
Cistern's Bottom.....	100 lbs., at 2½ cts. ... 2 50	.....	.....
Molasses.....	60 gals., at 15 cts. ... 9 00	15 gals., at 15 cts. ... 2 25	49 gals., at 25 cts. ... 12 25
Expenses.			
Wood.....	61 50	110 15	126 30
Wood.....	3 cords, at \$1 50... 4 50	1 cord..... \$1 50	1 cord..... \$1 50
Bone black.....	.....	25 lbs., at 2½c. ... 62 - 2 12	25 lbs., at 2½c. ... 62 - 2 12
Net proceed of 1000 lbs.	57 00	108 63	124 65
Crop of 600,000 lbs.	\$34,200 00	\$64,818 00	\$74,965 00

NOTE.—The dry bagasse from the cane giving one thousand pounds of sugar, is, as fuel, more than equivalent to one cord of wood, and when the first is used with the apparatus, it dispenses altogether with wood.

In condensing the above we find that the profit on a crop of 600,000 pounds, derived from the new process, and above the common, is as follows:

	Rough sugar.	Liqueured sugar.
1st. Old land.....	\$24,978	\$34,696
2d. Ordinary land.....	27,798	37,728
3d. New land.....	30,618	40,608

We are informed that the advances incurred by the planters, to take a yearly crop of 600,000 pounds by this apparatus are \$30,500, to obtain rough sugar; and \$24,500 to make liqueured sugar.

The following extracts are from the able address of Hon. P. A. Rost, delivered before the Association in 1846. They are worthy of a much wider circulation than has yet been given them.

JUDGE ROST ON THE CULTURE AND MANUFACTURE OF SUGAR.

In a paper which I had the honor to contribute to the labors of the Association last year, I stated that the modern improvements in agriculture were the result of recent and more accurate knowledge on draining, plowing, manuring, and interchange of crops. I then gave a description of the process of thorough draining, as practised in Great Britain, and of subsoil-plowing, which is the complement of it. It is unnecessary to revert to the subject here, except for the purpose of stating that this process is being rapidly introduced in the British

West Indies, and that it has proved as beneficial there as in Europe; so much so, that although by the present modes of cultivation the average of ratoons and plants is seldom two thousand pounds of sugar per acre, it is confidently believed that in lands thoroughly drained and subsoiled the average will be five thousand pounds per acre. I have no doubt of it, and when that system is introduced here, the produce of a depth of sixteen inches of dry alluvial soil cannot be predicted; nobody knows to what size cane may be made to grow, and how much sugar it can yield. But, sir, the process is expensive, and can only be introduced gradually. We must, for the present, go on with our open drains, and we can do passably well with them, provided we have them not over one hundred feet apart, and not less than three feet in depth. With such drains, made or thoroughly cleaned when the land is planted in corn, the hardest clays, if not too low, will be found in the subsequent years to drain as well, to plow as deep, and to pulverize as fine as light soils; they will, moreover, yield greater returns of sugar.

Connected with the subject of draining, is that of draining swamps and low lands so as to render them fit for cultivation—a subject of high importance, since, besides the vast quantity of public lands of that description in Louisiana, there are few plantations on which the proportion of these lands is not greater than that of the cultivated fields. Some abortive attempts at draining low lands had before been made, but within the last year a few intelligent planters below New Orleans have taken the lead in good earnest. Their draining machines are the most perfect of the kind, and they have succeeded in obtaining solid foundations for their locks. After the heaviest rains they dry their land in an incredibly short space of time, and their crops of corn are now growing in marshes below the level of the tides. Their success establishes the fact, that the low lands may be effectually drained in large tracts at an outlay which, with the Congressional price of those lands, would not exceed fifteen dollars per superficial acre.

The food of plants, and their modes of existence, form the subject of a very remarkable work, that of Justus Liebig, upon organic chemistry applied to agriculture. Others before him had submitted to analysis trees, plants and the earths in which they grow. Countless results of isolated experiments had been collected, but they were rather perplexing than practically useful, till the master mind of Liebig constructed out of them a rational and simple theory of vegetable life. He had not all the facts necessary to make his theory perfect; he was not aware, for instance, of the action of galvanism and electricity upon growing plants. But he did for agriculture what Lavoisier had done for chemistry; he systematized what was known, and pointed out to his successors the true path of discovery. Taking for granted that the substances which are invariably found in a plant are necessary to its perfect development, he has shown which of those substances were supplied by the earth, by the atmosphere and by rain-water; he has proved that pure vegetable mould, which has been considered as the only agent of vegetation, had in it but a secondary, and not an indispensable agency, and that the results assigned to it were produced by carbonic acid, water, and ammonia, or

rather nitrogen, and certain mineral salts which the earth supplies; he has discovered that in sugar-bearing plants carbonic acid is the source of saccharine matter. I cannot enter into a detailed examination of this author's views, but I will attempt to show you some of the results to which his theory would lead in the cultivation of the cane, and you will be pleased to find that the practice of our good planters fulfils all the essential requisites of science.

Sugar-cane, analyzed with great care and in various seasons by Mr. Avequin, a person fully competent to the task, is found to contain in proportions, not material to the present inquiry, the following substances, which, according to Liebig, are supplied exclusively by the earth: acetate of potash, phosphate of lime, silica, sulphate of potash, phosphate of potash, chloride of potassium, acetate of lime. These, as well as carbonic acid, ammonia and nitrogen, are hard names, names new to most of us; we must learn their import. Twenty-five years ago we knew not the meaning of piston and cylinder, of steam-chest and safety-valve. We all know it now; and as the application of steam to the mechanical arts has not wrought a greater change than the recent discoveries in agriculture are destined to effect, we will have to sharpen our intellects once more and raise them to the level of the times. Upon this, however, I do not at present insist, and if you are disposed to be very obstinate, take the mineral salts I have mentioned, as things which, being invariably found in the cane and never in the atmosphere, or in rain-water, should exist in the soil in a state fit for assimilation by plants; your lands must contain, in that state, potash, silica, lime, chloride, phosphoric acid, sulphuric acid, and substances yielding ammonia; and should any of these be wanting, they must be supplied by deep plowing or by manure.

As it is well known that cane flourishes equally well on all our alluvial lands, when they are first brought into cultivation, we may assume that all these lands once contained, in a state fit for assimilation, the substances necessary to its growth. There is, therefore, no original deficiency to supply, and wherever the cane has ceased to grow and to ratoon as it once did, it is because those substances have been abstracted from the soil by injudicious cropping.

Knowing the mineral substances which the cane requires, chemists tell us that we might at any time ascertain the deficiencies of our soil, by having it analyzed. The suggestion is plausible, but there is nothing in it; we would be as wise after the analysis as we were before. The learned author already quoted shows that arable lands are the result of the disintegration of rocks during many thousand years; that this process is ever going on at the surface of the earth, and that many thousand years will elapse before it is completed. By this process the alkalies and salts which the earth contains are gradually set free and rendered fit for assimilation by plants; and when all the substances thus set free have been taken up, plants requiring them will cease to grow in the soil where they are wanting; and yet if it will require thousands of years to effect a complete disintegration, the quantity abstracted by the cane in Louisiana, during a cultivation of forty years, must be infinitely small in relation to the quantity yet remaining; and accordingly it is found, where land sup-

posed to be exhausted has been analyzed, that it contains the same elements as the fertile soils adjoining it, or found beneath it; united in very nearly the same proportions. It is not the precise quantity of the different elements contained in our soil, which it imports us to know, but that portion of them which is disintegrated and fit for assimilation. This, I apprehend, chemistry cannot tell us.

If we could every year provide a sufficiency of mixed animal and bagasse manure for all the land we plant, it would be idle to inquire about the deficiencies of the soil, since that manure contains all the requisite substances. But, compelled as we are by the severities of the climate to plant annually a large portion of our crops, we cannot save one-sixth of the quantity of manure required. This should be husbanded with care and placed in rotation on the oldest lands; for the remainder, manure would have to be purchased at an expense which would not be under thirty dollars per acre, and the question naturally presents itself—Is it necessary to incur that expense and the extra labor to which it would give rise? Intelligent planters say that it is not, and science justifies their opinion. If in the lands that have been longest in cultivation, the alkalis fit for assimilation are partially exhausted, it should be remembered that the plow has seldom gone beyond the depth of six or seven inches, and that below that depth is a virgin soil, in all respects similar to the original surface soil, and deeper than the plow can ever penetrate. So that if a depth of six inches had yielded a sufficiency of disintegrated alkalis to cane crops during thirty years, there is no reason why the next six inches below should not do the same, provided they can be brought to the surface and kept in good tilth. With the thorough drain system this presents no difficulty, and it can be satisfactorily accomplished with the open drains I have recommended. With those drains, a depth of plowing of ten inches, when the stubble is broken up for corn, will give to the land that cannot be manured all the substances which the cane requires from the earth but one; it will not give a sufficiency of nitrogen. I stated last year that nitrogen or ammonia could only be supplied in large quantities by manure, and I was not then aware that any but animal manure could effect that object. Farther experience and observation have satisfied me that it is supplied in great abundance by a process which has long been followed without any clear conceptions of its mode of action: I mean that of covering the land with peas as early in the summer as the corn crops will permit. One of the advantages of peas as a green crop is, that they take from the land none of the alkalis which the cane requires, while their powerful system of roots has a tendency to accelerate the disintegration of the soil. But their principal action consists in shading the land, thus preventing the escape of ammonia which the rain-water deposits in it, and hastening by shade and humidity the decay going on at the surface, and the formation of nitre, which ever follows in warm climates. The leaves and seed of the pea are richer in nitrogen than any other vegetable substance, and the result of their decay is the formation of additional quantities of nitric acid. The nitre and nitric acid thus formed, as well as the ammonia retained in the soil, yield to the following crop of cane the nitrogen they contain. The method now generally adopted of plow-

ing in the field-trash, restores to the ratoons, in a state fit for assimilation, most of the alkalies which the plants took up in their growth; and should more ammonia be wanted, by setting fire to the field-trash after a rain the top part of it is converted into charcoal, which has the power of absorbing ninety times its volume of ammonia. To facilitate this operation, cane ought not to be planted less than six feet apart. What precedes, and with it such frequent movings of the soil as perpetually keep the young plants in an atmosphere of carbonic acid, is the method pursued in Louisiana by all successful planters, and the only material improvements I would suggest to them are those of thorough draining and subsoil plowing.

There are, however, cheap mineral manures with which it would be well to try experiments. In hard clay lands, for instance, especially if they are too near the level of the swamp to be plowed deep with advantage, quick-lime applied to the corn land at the rate of fifty or sixty bushels to the acre, produces an admirable effect upon the ensuing crops. It is itself one of the substances which the cane requires, and can replace others; aided by a crop of peas, it very much increases the quantity of nitre and nitric acid formed at the surface, keeps the land in the finest state of tilth, causes the rapid decay of the inert vegetable substances which accumulate in it during repeated crops of cane, and is thus an abundant source of carbonic acid. Land I limed four years ago, was planted again last winter, and the cane upon it is the best I have.

Experiments successfully made in Europe induce me to believe that we all have at home a substance possessed of the same qualities as lime, and in a higher degree. That substance is clay when burnt to ashes. I cannot describe the process by which it is prepared; you will find it in a recent publication entitled the "Farmer's Manual." It is sufficient to state that little or no fuel is required, and that one small cart-load of the ashes is said to have a better and more lasting effect than eight bushels of lime. The ammonia which they absorb and retain, more than replaces the nitrification obtained by liming, and the burning disintegrates very large quantities of alkalies. It is to the effect of burning, that the inexhaustible fertility of lands formed by the eruption of volcanoes is to be attributed.

Common salt I have also tried with success, at the rate of ten bushels to the acre. It gives to the cane a deep green color, and seems to prevent the growth of grass.

I observed that covering land with peas caused the formation of nitre. In Europe, nitre and saltpetre are both used upon growing plants, at the rate of about one hundred pounds per acre; it is probable, that sprinkled before the plow, here, when the land is first thrown to the cane, their effect would be similar to that of peas.

Much has been said of late on the subject of guano, and experiments made in Jamaica prove it to be a valuable manure for cane. Used there at the rate of one pound to every four feet square, or about twenty-seven hundred pounds to the acre, it caused cane to ripen earlier and to yield two hundred pounds more of sugar per acre, than that dressed with common manure. Those who made the experiment seem to think that one-third of the quantity used might have

been sufficient. Admitting the fact to be so, and supposing the ratoons to last two years, and to yield an additional quantity of two hundred pounds of sugar per acre, which is not probable, an outlay of nine hundred pounds of guano would, in the next three years, give an increase of four hundred pounds of sugar. Where other manure has to be purchased, as in Jamaica, and costs more than guano, this increase of product is a material advantage. But where deep plowing and peas do as well as animal manure, the additional product obtained by the use of guano would not pay for it. An experiment is now going on with it in my neighborhood; if it should make the cane fit for the mill earlier than it usually is, it would on that account be very valuable. In the mean time, I would recommend the use of it to a portion of my audience whom I have, till now, sadly neglected: to you, ladies, within your realm of fruits, flowers, and shrubs. There, as well as in the garden, when applied with intelligence and care, it does wonders, and I beseech you not to neglect the means it affords you of increasing the beauty and the comforts of your homes. When God, for wise purposes, doomed man to waste his energies in conquering physical obstacles, he placed you near him to cheer him in his weary task, to remind him that his toils had a worthy object on earth, and to recall him in his hours of repose to the consciousness of his moral existence. All about his dwelling that has the spirituality of beauty and grace, is by some mysterious tie connected with you, and you have an interest in its preservation. Nurse your flowers, then, as if they were a part of yourselves, and let your favorite plants have a cheerful and happy look. Above all, do not torment them into fantastic and unnatural shapes; remember, that the God who made them, gave each of them, as he gave each of you, peculiar forms of beauty, which knives and scissors cannot improve, and that trimming should be resorted to exclusively with the view to restore and preserve the natural shape of each species, as you resort to the mysteries of the toilet to make the perfections you possess conceal the slight blemishes which may accompany them.

Although, for want of time and of competent knowledge, I have confined myself to the sugar crop, my observations upon draining, tillage, animal manure, and peas, may be considered as applicable to the cultivation of cotton also. I would not recommend any course which would farther extend that cultivation; but, if the same crops could, as I believe, be obtained from half of the land that now produces it, the other half might be employed in raising provisions and other products, such as indigo, hemp, and tobacco.

On the subject of interchange of crops, I have nothing to offer. and I will now direct your attention to the improvements proposed in the manufacture of sugar.

Not less than six new methods have been partially tested, and are now offered for our adoption. We ought to be thankful for every effort of that kind, and encourage to a reasonable extent those persons who, in trying to benefit themselves, desire also to benefit us. But planters cannot be expected to incur the great expense which the adoption of most of those methods requires, till they have satisfactory evidence of their entire success. That evidence is yet wanting; there is in all much room for improvement. The process of

my friend, Thomas A. Morgan, of Plaquemines, is thus far considered the best, and he is far from claiming perfection for it. The increase in the quantity of sugar obtained by some of the innovators, is principally owing to the fact that they re-boil the molasses. This is done equally well by others in open pans.

A new apparatus, said to embrace all that has been found valuable in the others, is now being constructed at the Novelty Iron Works, in New York, for Mr. Valcour Aimé, of St. James, a gentleman distinguished for his enterprise, as well as for his practical knowledge of the subject. It may do better than the others, but, sir, all these new methods have the original fault of the usual process, their authors being wrong. They commence by creating large quantities of coloring matter in the juice, and then, by a great variety of means, they endeavor to extract that coloring matter first from the syrup, and afterward from the sugar, and in this, by the by, nobody has yet effectually succeeded. Let me explain my meaning.

If you cut in two a sugar-cane and examine the interior part of it with a magnifying glass, you perceive the crystals of sugar as distinct and as white as those of double-refined sugar. The object of the operator should be then either to extract those crystals without altering their color, or, if that be found impracticable, to separate them from the impurities mixed with them, while the juice is in its natural state, and yet contains but little coloring matter. Instead of this, the juice is limed while all the impurities are in it. In separating the feculencies from the juice and uniting them in large flakes, lime dissolves a portion of them and forms with them coloring matter which, we all know, at once discolors the juice, when lime is used in excess. Afterward heat is applied, either in clarifiers or in the *grande*; but most of the impurities found in the juice will decompose and burn at a degree of heat far below the boiling point, say at a hundred and twenty degrees of Fahrenheit. This is shown by the thick scales continually forming in the *grande*. From that degree of heat the decomposition goes on in the clarifier, till the juice is drawn, and continues in the *grande* so long as there are feculencies left. This decomposition greatly increases the quantity of coloring matter, so that, as the juice is being clarified, it loses in color what it gains in purity; and here let me show the relative value of the *grande* and of clarifiers as agents of clarification. In the *grande*, if it is well attended to, the scummings are taken up as fast as they rise. A portion of them is removed before they begin to decompose, and the process goes on, so that before the juice reaches the boiling point, nearly all the feculencies are removed, and the source of coloring matter is removed with them.

Clarifiers reach the boiling point much quicker, and cannot easily be scummed. The general practice is, to bring them to that point without scumming; to let the feculencies separate from the juice by cooling and by rest, and to wash out the clarifiers every second or third time they are filled. Heat and alkalies acting in them upon the accumulated feculencies of one, two, or three charges, dissolve a much larger portion of those feculencies than they can possibly do in the *grande*; the formation of coloring matter continues during the time of rest, and, accordingly, planters, after repeated trials, gener-

ally agree that juice well clarified in the *grande* has a brighter and a lighter color, and makes better sugar than that obtained from clarifiers.

But to return to my subject, the first object of research should be to find means of clarifying the juice, without creating coloring matter. It is said that presses, something like those used to repress cotton here, have lately been successfully employed in the West Indies, instead of rollers; that the juice obtained is much purer, and that a much larger quantity of it is extracted from the cane. If so, this will be a great improvement, and the first step of the process I would recommend. From juice thus obtained, or even from our own, I have no doubt that all impurities less soluble than itself, may be separated by mechanical means, before heat and alkalies are applied, or at least with a very small quantity of alkalies. All other liquids, all fatty substances and oils, except cotton-seed oil, are clarified by very rapid process. Cane-juice can no doubt be clarified by similar means, and if this were accomplished, the process of sugarmaking would be very much simplified. The clarified juice might then be placed in an open evaporator, heated by the waste steam of the engine; then be limed and scummed if necessary, and concentrated to fifteen or sixteen degrees of the *pese strip*; then purified by filtration through animal charcoal, if white sugar was wanted, or by rest for other qualities, and finally concentrated in vacuum pans of great power, such pans as Mr. Thomas A. Morgan now uses and which he tells me can only be made in America.

The superiority of the vacuum pan is not universally admitted, and we are told that in France it is superseded by open pans, similar in construction to those called here Mapes' Evaporators. However this may be, I cannot help believing that the vacuum pan has many decided advantages over all others; one is manifest; the sugar may be grained in the pan, and the granulation is completely under the control of the operator. He may accelerate or retard it at pleasure; he may carry it so far that sugar will not run from the pan, and will have to be taken out of it; he may so conduct the operation as to increase almost at will the size and hardness of the crystals. This last is an indispensable requisite, if the practice of draining sugar in pneumatic pans should be adopted. The atmospheric pressure is much too powerful for sugars boiled in any other manner; it breaks and destroys the crystals, and in a very few days sets the sugar to fermenting.

The pneumatic draining of sugar has many things to recommend it; the usual loss by drainage is avoided, sugar is got ready for market day by day, as it is made, and it may be bleached by pouring white syrup over it and forcing it through the mass. It is said that the process is attended with considerable loss in weight; but as all that drains from the pans may be boiled over once or twice, it is not easy to conceive how the loss can occur.

One observation on the subject of our buildings. Houses of unburnt brick are of late much recommended to the working-classes at the North, and to the settlers in the prairies, as being cheaper, drier, and healthier than those built of brick or stone. On reading the description of those buildings, in the excellent Report of the Commissioner of Patents, it struck me that they were substantially the same

as the old houses of Louisiana, known by the name of houses *en colombage*. Is it not owing to a change in our mode of building that the present race of our people is not as hardy and as long-lived as their ancestors were? In former days no one ever entered one of those ancient houses without finding in it a brace of octogenarians at least. With our old houses, old people seem to have disappeared; and to you and me, sir, who are not quite as young as we have been, it may be of some consequence to ascertain the cause of this phenomenon. I have no doubt it is in a great measure owing to the dampness of our modern dwellings; and though we may not persuade our ladies to return to the primitive architecture which was the pride of their great-grandmothers, we may at least adopt it for our laborers, and I will make the trial. The brick houses we have built for the purpose of increasing their comfort, are the cause of many of the maladies which afflict them.

After reviewing the means placed at our disposal to increase the value of our products, and to overcome the disadvantages of climate, and the gradual deterioration of the soil, allow me to advert to other disadvantages and dangers, which in the opinion of many threaten us with inevitable ruin. Two causes of alarm now exist among a large number of our fellow-planters: the diminution in the value of our lands, which will result from the annexation of Texas, and the destruction of our industry by a reduction of duties on foreign sugars, made before we are in a situation to compete with foreign producers. I am happy to say that I believe we have nothing to fear from either.

A person looking upon the map of America, and perceiving a large portion of Texas south of Louisiana, would naturally suppose that Texas is the better sugar region of the two. But the Louisianian who travels in mid-winter through the prairies of that naked land, exposed to the unmitigated fury of north-westers, soon discovers that he has changed climate indeed, but that he has not come to regions in which tropical plants love to grow. I have it from a gentleman of undoubted veracity, Mr. John C. Marsh, that he has planted cane five successive years in the neighborhood of Galveston, and that he has never obtained ratoons from it. You may then consider it as a well-authenticated fact, that in Texas, as far south as New Orleans is, cane will not ratoon—the cold of winter destroys the stubble; I do not mean to say that it may not to some extent be cultivated there, but I assert that the competition will be by no means a dangerous one, and that upon trial it will be found that the Red river parishes of this State are better adapted to that cultivation, than the greater part of what has been called the sugar region of Texas.

Louisiana must remain the great sugar region of the United States; her climate and her soil are the best, and her geographical position is unrivaled. Reflect, sir, that almost every hogshead of sugar made here, is shipped without land carriage; that planters can always obtain from New Orleans in two or three days, any machinery they want, and that their supplies and their market are both brought to their own door. Compare this situation with that of the Texas planter, and you will admit that there is no room for apprehension.

There is a strong analogy between the cultivation of the vine in

Middle France, and that of the cane in Louisiana. During the first centuries of the Christian era, there was no wine produced in France, except Marseilles wine. More Southern Europe and the Isles of Greece were then the wine-growing regions. In the course of time, the monks of Aquitaine, of Champaign, and of Burgundy, God bless them! transplanted the vine to the shelter of their convent walls. Their effort were for a long time unsuccessful, but they persevered, and the great saints of those dark ages took a conspicuous part in the good work. At last their grapes attained maturity; they tasted the juice, and said it was good. Wine was subsequently made of it, and it is easy to conceive the joy of those holy men, when champaign first sparkled on their board, when the vintages of Medoc and Burgundy replaced in their cellars the rough beverages of Provence. The cultivation of the vine continued to increase and to improve, but the increase was so slow that wine was not exported from Bordeaux to foreign countries, till some time in the twelfth century. And now, sir, the great wine region of the world is that very portion of France, in which the introduction of the vine was the work of centuries.

How is it with the sugar-cane in Louisiana? It was introduced here at an early day from the West Indies, and cultivated to a small extent at Terre aux Bœufs, and in the neighborhood of New Orleans. Nobody at first imagined that sugar could be made of it. The juice was boiled into syrup, which sold at extravagant prices. In 1796, Mr. Bore, residing a few miles above New Orleans, a man reputed for his daring and his energy, formed the desperate resolve of making sugar. He increased his cultivation, put up the necessary buildings and machinery, and procured a sugar-maker from the West Indies. The day appointed for the experiment was come, and the operation was under way. The inhabitants of New Orleans and of the coast had assembled there in great numbers. But they remained outside of the building at a respectable distance from the sugar-maker, whom they looked upon as a sort of magician. The first *strike* came, and he said nothing; this they thought fatal, but still they remained fixed to the spot. The second strike was out; the sugar-maker carefully stirred the first, and then advancing toward the assembled crowd, told them with all the gravity of his craft, "Gentlemen, it grains!" "It grains!" was repeated by all. They rushed in to see the wonder, and when convinced of the fact, scattered in all directions, greeting everybody they met, with "It grains!" And from the Balize to the Dubuque, from the Wabash to the Yellow Stone, the great, the all-absorbing news of the colony was, that the juice of the cane had grained in Lower Louisiana. It did grain, it has continued to grain; it has grained the last season, at the rate of two hundred and fifteen millions of pounds, and if no untoward action of government prevents it, in ten years it will grain to the extent of much more than double that quantity. Prepare, therefore, to meet foreign competition. I tell you we can do so, as well as the wine growers of France, provided we improve the time that is left us, and remain true to the spirit of our national race.

The innate faculty of our people to subdue the physical world, their energy and self-reliance, their habitual disregard of discomfort, difficulties and dangers, have made other nations say of us, that we alone

could instil heroism in the common pursuits of life. With heroic determination, then, speed the plow; bear in mind that to go ahead without ever taking difficulties into the account, and by that means to succeed when others dare not undertake, is emphatically the AMERICAN SYSTEM.

In obedience to the following resolution adopted by the association we present the address delivered by ourself at the last meeting.

Resolved, That the thanks of this association be tendered to J. D. B. DE BOW, Esq., for his eloquent and instructive address, and that he be respectfully requested to furnish a copy for publication in their annual report, and also to publish the same at his convenience in the COMMERCIAL REVIEW.

Of course we feel no delicacy in this matter. We took the request of the association into respectful consideration. Ten months have passed without our compliance. As, however, there is some possibility of a little good being effected, we give the address, excluding those passages which are merely complimentary or apologetic, etc., etc. What we give, however, is long enough in all conscience. If we had the matter to do over again, we think we could do it much better, and make a more respectable affair. However, we were suffering from ill health at the time, and as it is *it is*—so let it go.

ORATION BY J. D. B. DE BOW.

What shall be done for agricultural science? How shall the indispensable wants of man be supplied with greatest facility, and the unwilling earth be made to yield the best and most abundant product for the longest time and with the least labor, to satisfy the desires and necessities, and produce the highest amount of comfort to the whole human race? This is the great problem in the elucidation of which the practical and benevolent minds of all countries are now engaged. Whatever Greek divinity it was that taught the art of culture to mankind, or showed them first how to fashion curious workmanship from the metals, better deserved Olympus than the "cloud compelling Jove," and performed an act more worthy of a god, than any other fabricated by inventive mythology.

The sanguinary and cruel strifes which have desolated the earth in all ages, have been justified in the providence of God as the means of checking the advances of population, and of preserving mankind from the famine and destitution attendant upon a too-crowded and over-stocked earth. Grave philosophical treatises have been presented to the world, announcing in startling terms this impending calamity. Ingenious moral and political expedients have been proposed to avert it. When Hobbes announced that war was the natural state of man, could he, think you, have much offended Malthus, who conceived that peace has a necessary tendency to starve him. Keep the members of the human race, said these philosophers, down to the capacity of the earth to maintain them all. Raise the capacity of the earth, say we, to satisfy all the requisitions of a rapidly augmenting population. Which is the nobler employ? The one is theoretic economy, ever over wise in its own conceits; the other is practical agriculture, based upon an unwavering confidence in the wisdom and the goodness of the First Cause, and the adaptation of the

earth to all the contingencies of the creatures who inhabit it. The great cardinal and fundamental doctrine of an enlightened political economy, may be stated to be the multiplication of product and subtraction of labor. Let two blades of grass shoot up where but one grew before. Let one man conduct the previous operations of two men. With these rules, I doubt whether we shall ever regard much the additional loaf of bread a day, which the neighbor dead leaves to be divided to the neighbor living.

The enlightened Voltaire held it as an axiom, that in the intercourse of nations the benefit of one could only result from the expense or loss of another. A doctrine so mischievous, you will agree with me, ought hardly to have found a convert, and yet we know that for gloomy ages of the world's history—alas! not even excluding our own—its baleful and blighting influences have been suffered to disturb the councils and pervert the actions of mankind. How slowly are we learning the great moral truth, that nations as well as individuals can benefit each other—that good is reciprocal—that all free intercourse in fairness must be, and in fact will be, one of the equivalents—that the distresses of our neighbors extend their effects beyond themselves, and that their prosperity is reflected over an equal area. It was Addison, I believe, who thought he could enjoy the beauties of his neighbor's grounds, delight his senses with the varied hues, the exquisite forms, the aroma of their ten thousand flowers, as much, perhaps, and in many cases even more, than the selfish owner who lorded it over them as his "empire sole." The jealousies of nations, as of individuals, are suicidal to the best interests of men. Philanthropy is a higher virtue than patriotism, as patriotism is higher than self-love. That orb which is revolving, and revolving, and revolving forever in a circle which never enlarges, and around a centre which is ever the *individual*, warms never with a genial heat—sunless and cheerless is its course.

The train of thought into which we have fallen, originated from two reflections: 1. The indisposition which has sometimes been noted among agriculturists to communicate what great observation, experiment, or research may have taught them, and by which they are enabled to realize better returns for their labors, or a superior quality of product for the market. 2. The notion generally current, that a nation ought to be more anxious to receive than to give; and that to be most prosperous is to want nothing whatever of the great world around and beyond us. The first of these levels a blow against industry and cordial reciprocity; the last strikes but too deeply at all commerce and civilization.

When you invited me, fellow-citizens, to address your Association, I was for some time undecided what plan to adopt in the selection and arrangement of subjects. In the first place, I deemed that agriculture was too wide a theme to admit of an indulgence in many details. To discuss almost any one of its numerous divisions, to make anything like a satisfactory exposition of late improvements, even in a particular branch, or to show the results of scientific researches and rigid experiments, would occupy more than the time you allot to this whole address. These matters, too, are usually so ably treated in the reports of the practical men who constitute your

committees. Need I remark, in addition, that if from the circumstance of my standing in the presence of agriculturists any inferences are to be drawn in favor of my capacity as an instructor in the arts they cultivate and advance, these inferences ought to be received, to use a legal phrase, with many grains of allowance. Let them be understood like those convenient fictions of the lawyers, ever raised, ever employed, yet never supposed to be any nearer the truth for all of that. Standing near me, however, and your guest upon this occasion,* it is my fortune to recognize one whose voice to-day would have been in your service, as his heart throbs with you, had we been allowed our way in this matter. Let him rest however, for it is *he* that claims it. A practical citizen, high enough to move with the philosophers, but never so high like them, or like the stars, as Bacon has it, that give little light, because of their so great elevation. An agriculturist to-day, a farmer preparing his stock, perchance, for the market—a statesman to-morrow, a diplomatist—an American senator and patriot, rousing grave senates with resistless eloquence, unmatched since his of yore—that man of Attica, who first

———“shook the arsenal,
And fulminated over Greece,
To Macedon and Artaxerxes' throne.”

I have taken another view of my duties as your speaker. I will regard this Association to be, what it ought to be, and what to an extent it is, the representative of the great interests of Louisiana; its prime object being the advancement and permanent welfare of the State. This enables me to take a higher position than I could, were I restrained to the consideration of any one or more of the prominent subjects of agricultural knowledge. In such a view of your Association and my duties, I am sustained by the course of some of the most distinguished similar bodies in the Union. Many of them have their committees upon education, upon the state of the law as affecting the planters' interests, on the condition of slaves, etc., etc. I therefore announce the State of Louisiana as a subject, and in examining into its present condition and future prospects, there will naturally fall under particular divisions, such reflections as may have occurred to me in relation to its agricultural and mechanic interests, and the best modes of advancing them.

I put the question to this respectable assembly, have we sufficiently regarded the position of Louisiana at the present time, and well considered what may be fairly and reasonably expected from her by the world at large? Has it occurred to us that in the mutation of time, and the sure working out of the problem of American history, Louisiana has ceased to be on the frontiers of the Union, and that in giving up her charge of the boundary, she has relinquished forever the right of being in any respect one step behind the most favored State of the Union? Of what a country has she become, as it were, the centre, and what incalculable influences may be exerted from her position! I care not where the sovereignty of Texas or the Rio Grande, California, Mexico, or the Western Indies may reside, by the laws of civil empire or of arms, for I know too well that there are other laws which have or been insensibly exerting their secret and mysterious

* Hon. Henry Clay of Kentucky.—an honorary member of the Association.

agencies, and giving to our institutions an influence, difficult to be estimated, all over the continent of America. I know that Louisiana, to say nothing of her position at the gates of a great river, which ripples in some of its tributaries almost in the distant Oregon, sits here by the gulf, as it were its sovereign, looking out upon all these immense and fertile countries at her very door—and that the great metropolis of Louisiana is to be the centre and the heart of all the great movements which, it needs no seer's eye to see, are to be worked out in the course of a generation or two, in the vast region from where the Sabine fixed its boundary, to where the isthmus connects the two Americas. It was a dream of La Salle to connect China with the Gulf of Mexico, through some supposed tributary of the Mississippi; but we, gentlemen, disregarding all rivers and tributaries, shall realize the vision by the amazing power of steam; traverse the country from ocean to ocean, centering in the lap of our already great city much of that Eastern trade which made Venice *what she was*, and left her, when it left her at last, *what she is*.

In such a prospect as is presented us in the view we have calmly taken, is there not enough to rouse the attention of every citizen of Louisiana? Yet, strange as it may seem, the subject in this light does not seem to have presented itself with all its force to those who are most concerned. The one great question, as I take it, now for the State is, how shall she be prepared for the new and responsible position she is to occupy?

“Commerce and Agriculture are the two great arms of our State's prosperity, but there must be a will to move those arms, and an enlightenment to will correctly. There must be a Cornelia to produce the Gracchi.

1. *The first duty of Louisiana, is the Education of her people.* Has she done this, and is she doing it, at this moment. Fellow-citizens, we were told that under our new Constitution there would be another and a better order of things. Let us hope so at least, so far as public instruction is concerned, since we have incorporated this in our fundamental law. Can we estimate the hundreds of thousands of dollars, that have been prodigally lavished by us in the support of schools and colleges, without any very appreciable advantage? The common school system of the State, with all the aid of parish assessments and legislative appropriations, has come to be regarded as a bye-word and a reproach. It is not a system from which anything but mortification and defeat can result. I know full well the difficulty with so thin and scattered a population as ours is, and as it is generally at the South, to establish and maintain adequate means of public instruction. An indefinite improvement may, however, be made within the limits assigned us. Shall a great and wealthy State pause to consider the difficulties, or enumerate the costs of distributing light and instruction throughout all its extent, and of bringing home to each embryo citizen, even the veriest offspring of beggary and want, the means of becoming a nobleman, in the only sense in which our institutions admit of nobility, and in which the might of intellect can make us all noble? I know of no patriot service more exalted than of that man, who will come forward in our legislative halls, to proclaim and carry out from an enlightened appreciation of the subject

in all its bearings, a reform such as the exigencies of the State so loudly demand.

II. If the first duty of Louisiana be found in the development of the minds of her rising population, *the second* is readily suggested, *in the maintenance of a sound and liberal government.* The laws of a people ever reflect their intelligence, though legal systems influence moral progress. I would, therefore, that our legislation be framed upon those safe principles of political science which have their foundations in knowledge and experience. In the utmost simplification is the perfection of government. Every unnecessary restraint is a crime against the principles of civil society. Liberty endures no arbitrary restrictions. National prosperity is secured in governing little and adequately, and not in governing much. Freemen only are the great heralds of civilization and advancement. They only permanently extend the area of knowledge, and are found on the outermost verge of thought, daring, and daring, and still daring on in their eagle flight to the sun. The night of civil and political liberty is the dark age of moral, social and intellectual progress. Let us look to it, then, in the administration of our government and our laws, that we elevate to office only the virtuous, the intelligent and experienced; that we reject all rash innovation, and realize, as near as may be, that idea of a perfect government in which the essence is virtue and intelligence. Standing here among you, fellow-citizens, on the site where the sense of the people has decreed the future seat of government to be, I could not but entertain these reflections and give expression to them. As you are made the conservators of the CAPITOL, the citadel of our strength, I would not have you less sleepless in your charge than those virgins of old, who watched forever, that the sacred fires enkindled on the altars of Vesta might be preserved lustrous and undimmed.

III. *An enlightened and well-governed people will foster and maintain those enterprises which are the natural results of free institutions; will see that the industry and energies of all classes are rightly directed and maintained, and that the advances of each important division of human labor are promoted by every legitimate means.*

COMMERCE, AGRICULTURE and ARTS, are the three great divisions under which a thousand minor ones array themselves.

I have said sufficient of the *commerce* of Louisiana on other occasions. It is an interest of our great city, which does not so much concern us to discuss here as it were in the interior. The enlightened men of that city will see to it, that the genius and enterprise of the East keep not so far that dizzy eminence which has in the past dwarfed us in the comparison.

Of our AGRICULTURE we have much to say and in detail. Around me are assembled the men who have collected here from every quarter, to unite in council upon the common interest and to devise modes of future effectual co-operation. Some of these are the parents of this Association, and I honor the patriot labors which through years of trial and discouragement have been bestowed by them, without one misgiving of a final triumph. I rejoice that there is a spirit abroad now to appreciate these services and to extend their influence.

Fellow-citizens: it is in this view that the appeal is made to you in behalf of the Association of Agriculturists and Mechanics of Louisiana, now convened in this town. It is believed, and can be demonstrated, that an enlightened co-operation of all the minds engaged in these pursuits will tend greatly among us, as it has done everywhere else, to advance the general weal. This much is demanded from us, and will we do our duty?

Agriculture is, without question, **THE** great interest of mankind. It is the breast, said the celebrated Sully, from which the State derives support and nourishment. Ireland in starvation and extending her arms for bread, will yet have yielded from her soil an amount in value, which shall exceed the value of all the merchandise which the merchant fleets bear annually away from our shores to all foreign climes together. Without assigning to the agriculturists the rank of being the *only* producers, as the celebrated school of Quesnay sought long to teach the world erroneously, it may still be insisted that the producers of agricultural wealth are the most numerous and most important of all.

I should be greatly delighted, did time admit, to trace with you the progress which agriculture has made since its first rude incipency "beyond the verdant walls of paradise," and mark in every age the influence which it has exerted and the relative degree of perfection attained. The limits of this address will not exclude us yet entirely from the field.

To say nothing of the culture of the earth, as mentioned in that ancient record, the Bible, nor to comment upon the beautiful fiction of Ceres, Proserpine and Triptolemus, which poetic fancy created to account for the origin of the arts, we know that the early princes of Greece labored at the plow with their own hands, and that in Homer there are allusions to the soil, its products and its labors, always beautifully conceived and highly colored. The Greek writers, Hesiod and Theophrastus, laid down at a very remote period, as then well understood, the principles of plowing, fallowing, irrigation, draining, ditching, manuring, etc.

The Romans interwove agriculture curiously in their religion and their superstitious rites. Their most distinguished statesmen and generals had patronymic names, derived from that of some vegetable, of which their ancestors were the successful producers—for example, Fabius, Cicero, Lentulus, etc. The leading men of the state toiled occasionally in the fields—as Cincinnatus, Curius, Dentatus, Fabricius and Regulus. The farm of Cincinnatus is estimated to have contained four acres of land only. Thus was it, as Pliny held, that the earth took pleasure in being cultivated by the hands of men crowned with laurels and decorated with triumphal honors. Cato, Varro, Virgil, Columella, Pliny and Palladius, renowned names, have been attached to agricultural treatises. Who can forget the graceful and beautiful allusions in the classics to the genial toils of the husbandman. What modern has ever expressed more sententiously the rules of successful culture than Cato? Do you ask, says he, what is first in good tillage?—to plow; what is second?—to plow; the third is to manure; the other part is to sow plentifully, to choose

the seed cautiously, and to remove as many weeds as possible in the season.

From the downfall of the Roman empire, until the Reformation, and even much later, industry in Europe was paralyzed, and agriculture, with the other arts of peace, declined, as barbarism and arms usurped the sway. The iron rule of the feudal system resolved the great masses of society into an absolute and hopeless bondage, fatal to all improvement. Fields were converted into forests for the chase. The domain of the king reached over all the lands in his realm, and he distributed them out to his favorites, to be held at his arbitrary will and pleasure. Thus did those lordly chieftains, independent of all the world but their sovereign, and brooking little dependence even upon him, assert their territorial rights, and parcel them out in minor proportions to the vassals, leet men, yeomanry or people, with ingenious tenures, which exhausted the products of labor and enterprise, in the rapacious exactions of a suzerain lord and master. It required centuries to rescue man from this curiously elaborated system of feuds, which consecrating power and its abuses, imposed upon the senses by its gorgeous concomitants. But where there is insecurity of property, or rather no property at all, there can be no progress nor enterprise. It almost seems in this view that a sixth sense has been added to the constitution of man—the *sense of property*. It is the first to exhibit itself, and the last to disappear. Give us something that we may call our own—no matter what it is—how small soever—how insignificant—the child shows it in his toy—no matter; is it ours? May we use it, dispose of it, change, direct, alter, destroy it, consulting no other will or pleasure than our own? Oh, there is a luxury in property, and in the rights and privileges of possession and property! Profligacy and avarice are its extremes: industry, order, society, laws, government, are its means. A wise Creator fixes us thus to the earth, of which we are a part, on which we must live, and to which we must return at last, despite the seductions of transcendental dreams.

When the feudal system tottered upon its base, and fell at last in a mighty ruin, scattering its castellated remains over Europe, the world began that rapid stride in the career of progress, which has crowded into a generation the events of a previous thousand years.

In the picture which Europe exhibits at the present day, there is much to gratify every true friend of the race, and in the contrast much to disappoint. The once fertile Campania of Rome has become the resort of beggary, and where the garden of the Hesperides was placed, whole regions of Spain present the aspect of a desert. The country has been parceled out to the nobles and the clergy. "One-third of Spain belongs to the families of the Medina Celi, D'Alva, D'Aceda, and to the archbishops, bishops and chapters of Toledo." The vicious systems of man have destroyed all this fine country. The prospect, however, brightens as we regard Tuscany, which though two-thirds mountainous, and of but 8,000 square miles surface, contains yet a prosperous populace of 1,300,000; or the Piedmont and the Milanese, the garden spots of the world—vineyards and luxuriant pastures rise upon the delighted senses, amid naked, barren and precipitous rocks.

England and France, within the last few years, have made the most extraordinary progress in agricultural pursuits. We might speak of Britain particularly, where is practised, at the present day, the most liberal, enlightened and scientific husbandry in the world. Every foot of soil capable of production is made to teem with vegetable life, and lands improved to manifold their former value. In draining, alone, a subject now exciting such deserved attention, there has been conferred almost inappreciable wealth. Dr. Buckland-tells us there are men now living, who can remember when 40,000 acres of land, belonging to the late Lord Leicester, now worth £40,000 a year, were nothing but rabbit warrens and rabbit heaths. And *the secret was draining*. A similar tract of land belonging to Sir Robert Peel, was swampy and altogether barren, until, by the same means, it was made to yield, in the first year, a splendid crop of turnips, in the second, one of barley, so luxuriant that the stalks could not support the ears, and fell prostrate to the ground. The expenses were repaid in two years, and a worthless field became a most profitable piece of land.

In the United States, the present may be considered the great age of agricultural reform. It was not singular that with such an abundant country as ours, the soil would be long cultivated without any special care, and with none of that economy which would preserve its vitality. The consequence has been, that lands which were the most fertile in the world, became at last almost irretrievably barren; and the sons, whose fathers grew wealthy, scarcely with an effort, are forced to submit themselves to exile from the paternal estates, sacrificing or abandoning them, to seek in new and virgin soils the support they cannot find at home. Alas! how long has this been so with many of our old southern climes—most particularly Virginia and the Carolinas—and how have their sons been scattered abroad by this reckless system! Taught by sad experience, these ancient commonwealths appear to be now engaged in earnest to recover what they have lost, and their citizens strain every nerve in devising means of regeneration.

In most of the States of the Union, efforts are being made to develop the resources of agriculture, which are proportionate to the subject.* The most usual of these means are the establishment of

* Agriculture from the rude state in which in former times it existed, has emerged and is becoming every day more and more reduced to the method and precision of science. The profound investigations of Liebig in the vegetable world have already created a revolution; a new and wide field of research is opened, and one that allures from the transcendent interests which are attached to it. The application of chemistry to agriculture, is a farther step in the progress of that Baconian philosophy, which addresses itself to the wants of man. By means of chemical processes, we stimulate nature, we develop and bring into activity latent and inert elements, or neutralize and destroy those which are noxious. We resuscitate soils that are exhausted and dead, and increase without limit those that are already vital and fruitful. Malthus need dread no more a world starving from over population, when the capacities of its soil may be augmented almost indefinitely by means within our control. It is gratifying to mark the new impulse which has been given to agriculture. We cannot refer, without enthusiasm, to the labors of Liebig, Boussingault, Thaers, etc. In our own country we are not without able laborers in the field. Agricultural surveys are being everywhere directed by State legislatures. We may particularly refer to New York, Virginia, S. Carolina, Alabama, etc. Agricultural Associations are rising in dignity with us, and journals devoted to this branch of industry, becoming valuable and complete. The attention of all parties seems to be at length aroused to the importance of the subject.

County and State Agricultural Associations, fruit, flower, and stock exhibitions, etc. Some of these are conducted in the most efficient manner, and exert a degree of influence we can scarcely estimate. There is an emulation excited which never sleeps again. There are essays and reports prepared, and perused by ten thousand readers; there are experiments made, and subjects discussed which are full of light. We have been watching the new spirit of our country, and thank God for it. Legislative appropriations are made to the extent of thousands for agricultural surveys, and all the mineral characteristics of soil are determined with a degree of precision and certainty, which renders it almost impossible to be deceived in its value. What an improvement too, in our agricultural publications, standard and periodical. Even the newspaper press regards it necessary to have a department for this subject, while chronicling the events of busy life. Our agricultural periodicals improve rapidly in the nature and value of their material. These, too, have come to be in requisition among the planters, to whom they are addressed, and they are liberally sustained; for what planter would be without such means of information? To be without a library of agriculture, is for a planter to be without the implements of his profession.* A lawyer without the civil code, would be in about the same condition and as wise. There, too, is the new feature of agricultural schools. We hear of them in different parts of the Union; in Prussia, France, Germany, Russia, Ireland, and Switzerland. A professorship has been endowed in the venerable Harvard; the same has been done in South Carolina, and we trust to see the example followed in every such institution. If we are ever to have the University of Louisiana, of which our constitution

* While upon an agricultural library, let us be allowed to suggest the best authorities to be consulted by the liberal agricultural student, disposed to perfect himself in the science, and to extend the influences of such knowledge throughout the country. Some of the works may be had in this city, most in our country, and all by foreign order.

Harte's *Essays on Husbandry*, London 1770; Works of Arthur Young, 9 in number, from 1771 to 1794, London; Dickson's *Husbandry of the Ancients*, Edinburg, 1788; Brown's *Treatise on Agriculture and Rural Affairs*, Edinburg, 1811; Loudon's *Encyclopedia of Agriculture*, London, 1844; Low's *Elements of Practical Agriculture*, London, 1838; *Principles of Tillage and Vegetation*, by Tull, London; Kirwan's *Manures*, London, 1808; Davy's *Agricultural Chemistry*, London, 1821; Beaton's *New System of Cultivation*; *Chemistry for Farmers, and Treatise on Soils* by Sprengel, 1831; Liebig's *Organic Chemistry*; Johnston's *Agricultural Chemistry*; Works of Boussingault, Dumas and Mulder; Gardner's *Farmer's Dictionary*; Armstrong's *Agriculture*.

To these should be added some of the agricultural periodicals of the country, a list of which we venture, on the authority of Mr. Burke.

FARMERS' LIBRARY by Skinner, New York, monthly.—COMMERCIAL REVIEW, *New Orleans*, a journal of TRADE AND AGRICULTURE, monthly. The others are arranged according to States: *Maine Farmer*, Augusta, Maine, weekly; *Farmers' Monthly Visitor*, Concord, New Hampshire, weekly; *Boston Cultivator*, Boston, Massachusetts; *New England Farmer*, Boston, Massachusetts, weekly; *Massachusetts Ploughman*, Boston, Massachusetts, weekly; *New York Farmer and Mechanic*, New York, weekly; *American Agriculturist*, New York, weekly; *American Quarterly Review of Agriculture*, Albany, New York; *Cultivator*, Albany, New York; *New Genesee Farmer*, Rochester, New York, monthly; *Farmers' Cabinet*, Philadelphia, Pennsylvania, monthly; *Lancaster County Farmer*, Lancaster, Pennsylvania, weekly; *American Farmer*, Baltimore, Maryland, monthly; *Southern Planter*, Richmond, Virginia, monthly; *North Carolina Farmer*, Raleigh, North Carolina, monthly; *Southern Agriculturist*, South Carolina, dead; *Southern Cultivator*, Augusta, Georgia, monthly; *Alabama Planter*, Tuscaloosa, Alabama, weekly; *Planters' Banner*, and *Concordia Intelligencer*, Louisiana, weekly; *Nashville Agriculturist*, Nashville, Tennessee, monthly; *Ohio Cultivator*, Columbus, Ohio, weekly; *Indiana Farmer and Gardener*, Indianapolis, monthly; *Dollar Farmer*, Louisville, Kentucky, monthly; *Prairie Farmer*, Chicago, Illinois, monthly; *Michigan Farmer*, Jackson, Michigan, monthly.

speaks, will not the planters look to it, that that institution disseminates the principles of scientific agriculture? What the government has been doing through the medium of the Patent Office reports, would be of inestimable importance, if continued and improved in the manner which so readily presents itself. The Smithsonian Institute may be made, in addition to its other character, a great NATIONAL SCHOOL OF AGRICULTURE.

Fellow-citizens—Gentlemen of the Association: what are we doing for agriculture, and what do we propose to do? Certainly the state of this science is at a lower ebb here than in other parts of the Union. Our fields have yielded us such abundant fruit, that we deem it impossible they can do otherwise. We do but allow nature her own course, and she enriches without an effort. As Adam Smith used to say of those who rent land in England, we reap almost where we have not sown. But will this continue so always? Does not the human constitution often appear fresh and vigorous, under the most exhausting and destructive habits?—appear, we say, for disease and death almost inevitably close the scene! It must be so with us, if we abuse what God has bountifully given. When Deity proclaimed a sabbatical rest, even to the fields of the Hebrews, he proclaimed, at the same time, a great law, that the earth, like man, demands care and nurture, and that it is piety to exercise them. The economy of agriculture is to plant, that we may plant long, and “hasten slowly,” that we may quickly reach wealth. It might be long, very long, before our lands would lose their value, under the worst of all systems of cultivation, but the time must come at last. Why should it come at all? If it be necessary to spend upon the soil a portion of its income, it is a kind parent which repays with abundant interest every act of favor. The State allows eight per cent. interest, and none else; but an enlightened agriculture defies the law and pays you usury, even compound interest. I know there are men around me, who are even more deeply impressed with this truth than I am myself. The State, it rejoices me to say, has many such sons, and her prosperity will grow as their numbers increase.

The Society which I address was engendered by these considerations. It has existed several years, and held its annual meetings in this town. Exhibitions have been made, addresses delivered, and legislative aid granted, yet after all the association has not flourished, and has had but a small portion of the influence which belonged of right to it. Why is this? Why are we so much in the rear of other communities? Is the fault in the people, or where? I ask in vain. I know not how many of our parishes are represented here in convention, but I know that they should all be; that no consideration should prevent their uniting in a movement which addresses itself to the important interests of a great State. However, gentlemen, we will not despond. Though there is much to be done, it is not impossible. I would even say *conquer impossibilities*, for in truth there are none such to resolute and determined men. It is not alone our State Association we want. Let there be such had in every parish. These lesser bodies, consisting of neighborhoods, should often meet in social, though useful union. It would add many a pleasing hour to life.

* This subject will, we understand, be put in charge of the Professor of Chemistry.

Discussion of practical and agricultural subjects, previously assigned, would stimulate thought and experiment, infuse a liberal spirit, incite research and observation, and much of that emulation which is the secret of success, and which in honorable minds is a beautiful virtue.

Who is there that will lead the advance in these Parish Agricultural Associations? How simple their institution, and how important their results. From the numerous subordinate bodies the central one here would receive its annual delegates, reports, products, etc., for general and mutual interchange and instruction. I say *here*, for now that the legislators of the State are to convene in this town, its importance must be greatly increased, and the meetings of the Association and the attendance on the fair will be under greatly more favorable auspices. I would enjoin, then, that we suffer not another year to pass away with the same indifference as the past. It will not be creditable to us. How much more worthy of the human mind is the occasional employment we have suggested, than the listless ease, the unintellectual routine, the torpid life, and even the dissipation of thought and habits, in which the leisure hours of men are often occupied, and planters among the rest. Leisure may always be obtained for liberal pursuits. We never forget the hours which were devoted to them. We never regret a co-operation with our fellowmen for noble purposes. We have *lived* when employed in the study of great truths, valuable in being practicable, but not *because* they are so. There are pleasing memories of the hours we have spent:

"—— not in joys, nor lust, nor wine,
But search of deep philosophy."

The Agricultural Association will therefore aim to induce in our planters something of the spirit we have sought to inculcate. It will be preserved free from all private or party influences, that have done so much to disturb society. Its *officers* will be selected from the most experienced, intelligent and worthy. Its *committees*, the most important feature of the organization, will be arranged with special reference to the subjects upon which they are to report, and their opportunities of being acquainted with them. Its *premiums* awarded discreetly, and without a shade of prejudice or partiality. In the first efforts to attain these, and before a very complete system can be arranged, it is not improbable some errors may be made, and dissatisfaction result. But such can never affect the value and importance of the institution, incident as they are to every similar body, in every shape of its existence, and more especially in its infancy.

The prominent object of attention in an organized Society of Agriculturists, may be stated to be *the improvement of the staple crops of the State, and the introduction of new, productive, and profitable ones*. It addresses itself to the fields, and demands an improved and more liberal HUSBANDRY—to the gardens, and bids HORTICULTURE and FLORICULTURE crown our boards, and delight our senses. Nor is it mindless of the condition and improvement of the animal creation—THE STOCK that serve us in our labors, and minister to our wants.

The exhibition made to day at the Fair of the Association, creditable though it be, is only an earnest of what is intended, and what there are just reasons to predict, I shall not undertake to describe

what it will be for your senses to inspect. The two staples of sugar and cotton appear to have absorbed all the agricultural capital of the State. The sugar planter may congratulate himself, that from a variety of causes, but chiefly now from the limited range of the sugar region, and the increased demand for the article, from the openings of foreign markets, this staple has enjoyed, and bids fair for a long way in the future to enjoy, unrivaled prosperity. Its production, too, is on the rapid increase with us, but with no ground for uneasiness that it will ever be too large. The improvements in the culture, of late, in the quality, in the manufacture, so striking and important, are familiar to you all, and need not be dwelt upon here. Though much has been effected in a short time, there are many improvements still indicated. No other branch of agriculture requires more the aid of liberal science than this.

The cotton planters of Louisiana, in the results of the past and previous season, deserve much commiseration. An insect of fearful and voracious appetite has traversed their fields, and in whole regions of country, like the locusts of Egypt, left literally "no green thing alive." The advance in price, in consequence of an average crop in other sections, will not be sufficient to compensate for the reduced quantity, and it unfortunately happens that even the advance that has taken place will benefit but the comparatively few who have not been forced early into market. The future, I should however think, will be most auspicious to this class of producers, where they can be protected or preserved from the scourge which has visited their fields. It has been made evident that the consumption of cotton is advancing much more rapidly than the production, and, of course, gaining upon it. European stocks, that have influenced prices so much, have given way already, and it is not improbable at the expiration of the present year, they will be reduced very low, and in a few years become nothing. There are new markets for the staple opening on the continent of Asia, in Africa, and in China; even Japan will probably invite us, and the old markets of Europe, as well as our own country, increase daily in their demands. The competition of the East Indies ceases to be longer named, and one may dare affirm that the discovery in Europe, by which cotton is converted into an agent of detonation is but one among the many uses yet to be discovered, to which this *snowy fleece*, more precious than the "fleece of gold," will be applied.

It is not probable the agricultural pursuits of Louisiana, will be much diversified for a very long time to come. I am by no means persuaded that we have much to gain, by diverting our energies and our capital now into any new channels. Such are the wants of the world, it is reasonable to suppose the day very distant when there shall be a too great production of sugar, and I do not regret that circumstances are tending to make this the one great production of our State. No other staple is likely to yield more abundant returns. But let it not be supposed that any argument can be drawn hence for an exclusive devotion of the planter's whole life to a single subject, to the neglect of all others. A single pursuit, unrelieved, contracts necessarily the views and range of thought of the individual. He becomes a man of one idea—sees, hears, feels, knows, regards nothing

else—like a technical lawyer, incased in forms and precedents, and forever incapable of reaching that high “vantage ground” of the profession, of which Lord Bolingbroke speaks, and on which he recognized Bacon and Clarendon. It is one of the evils of such extreme division of labor, and devotion of one man to one pursuit, that it degrades a thinking being into the rank of a machine. It might be very well for trade, that ten men are employed in the manufacture of a pin; but it is a sad account, says Adam Smith, to give to one’s Creator, that a whole life-time has been spent in the production of a pin-head.

I would have the planters of Louisiana, as gentlemen and intelligent men, cultivate a knowledge of every department of that profession which they have made their own, though in practice confined to one department solely. Such a study is one of the most liberal and dignified, and tends in a high degree to elevate the whole nature and character of the student. Surely our planters will not complain of a want of leisure for this, and they will not point me to a more appropriate pursuit. I do *not* base the argument upon mere pecuniary considerations, for it is a higher and a nobler one. We are not here to attain wealth simply, but to *make wealth subserve all the great ends of our being*. We do not live to learn only such things as mere living demands. Pythagoras said truly, “He who knows only what he finds it necessary to know, is a man solely among the brutes.”

It would employ little if any labor, and draw nothing upon the time of our planters, if they would lay out and cultivate their grounds in orchards of such fruit as will thrive in our genial clime, introduce as means may admit exotics, nurture rare plants, and beautify their estates with vines, flowers, and shades, and exhibit thus the appearances of that true comfort and happiness, ever associated by the virtuous with ideas of rural life. I can conceive of no solitude more cheerless in the world, than an estate in the country, which while inhabited, is neglected, and suffered to fall to decay. God has so fashioned us, that we are improved in head and in heart when surrounded and associated with the beautiful in art or in nature.

We have heard it suggested, and believe it to be true, that the culture of the finer qualities of *tobacco* will be found very profitable to those in the State who have proper lands, and whose capital is not large. Indeed, we have seen some admirable specimens of this growth, both in the city on sale and here. The *olive* has been frequently suggested. The legislature has given encouragement to *silk*, which needs little effort to be successfully produced. And there can be no question that in our abundant waste lands, rice of a superior quality can be made a very considerable crop. Whenever our attention may be given particularly to these subjects, and the time will no doubt ultimately come, we shall find in them sources of great profit and wealth. At present, I suppose that any attention bestowed will be little more than relief spots in the otherwise monotony of our agriculture.

I cannot dismiss the subject of agriculture without remarking upon its great influences upon the character of society at large. In every

country the agricultural classes, or those who have an interest in the soil, in the lands, who are removed afar from the corruption of cities and the adverse influences of courts and power, are the bulwarks of the commonwealth, and the friends and supporters of sound government. They are never radicals. They ever deprecate rash innovations. They go for the government, while there is a possibility of preserving it pure, or of reforming it, and they declare only for REVOLUTION in that desperate contingency, when tyranny has overleaped all barriers, when hope has fled, and endurance longer would be a crime.

The poets in all ages have traced the charms of agriculture with touches of exquisite finish. They present us captivating and beautiful, yet not untrue, pictures of its genial labors, its dignity, its repose, and its independence. The finest illustrations in Homer are taken from the husbandmen and their pregnant fields. Hesiod is equally eloquent, when he touches upon rural life. Who would ever forget the graceful and thrilling passages which abound everywhere in the pages of Virgil.

The Romans cherished agriculture as from the gods. Cincinnatus, Dentatus, Regulus, Fabricius, etc., were planters, and devoted their leisure from cares of state to the culture of the soil. The pleasure seats of the leading Romans were their country villas. Hardy independence, sterling patriotism, enthusiastic devotion to liberty and love of country, and all the noble propensities, will be found in the agricultural classes. The virtues, too, of these classes are most likely to be preserved throughout all vicissitudes, and they have ever been conspicuous. The Hon. Daniel Webster, in his speech at Boston, in 1820, contrasted strongly the morals of the farming and other interests, showing an amount of crime in the latter as *twenty to one* greater than in the former. In the preservation of health, true enjoyment, and long life, the pursuits of agriculture have the great advantage. Cities hardly counterbalance these by their elegance, refinement, in telligence and luxury. Their frightful waste of life must be supplied from the cradles of the country. Physiologists tell us that in Paris there is scarcely a very old family. If they have not intermarried with new comers they have been lost, and even their names blotted out in a few generations. I am rejoiced, then, from the extent of our great Union, the immense territories, fruitful, and with almost every variety of soil and climate, and of unsurpassed fertility, an immense extent of forests yet unsubdued—I am rejoiced I say, that while our COMMERCE is whitening every sea, and our MANUFACTORIES are seated by every waterfall, the great and predominant influences of our AGRICULTURE will be felt in all time to temper and regulate the whole.

I shall not be thought guilty of any undue eulogy in the reflections which have occurred to so many others than myself. I am willing to leave them with you, and leave you to the enjoyments of the life you are capable of appreciating—to the life for which we might gladly exchange cities, that Cowper well remarks, "God never made"—to the rural retreat, where it will be your own fault if plenty does not smile around; if true comfort, if refined enjoyment, if contentment and happiness are not realized in the calm home.

with nature for a companion to counsel you 'from her thousand varied forms :

"For who the melodies of morn can tell,
The wild brook bubbling down the mountain's side,
The lowing herd, the sheep-fold's simple bell?"

Or, lest I should be reminded of a topographical blunder in commending you to the charms of bubbling water-falls, mountains, and sheep-folds, even in this clime of the sun and floral luxuriance, now that your harvests are ended, and you have reaped from your toils sufficient at least for gratitude to an all-bountiful Providence, I will dismiss you with the admonition and counsel of honest and inimitable old Thomas Tusser :*

"In harvest time, harvest folk, servants, and all,
Should make altogether good cheer in the hall,
And fill out the black bowl with blithe to their song,
And let them be merry all harvest time long.
Once ended the harvest, let none be beguiled,
Please such as did help thee, man, woman, and child;
Thus doing with alway such help as they can,
Thou winnest the praise of the laboring man.

Now look up to Godward—let tongue never cease,
In thanking of him for his mighty increase;
Accept my good-will—for a proof go and try—
The better thou thriveest the gladder am I."

ART. II.—THE CONQUEST OF ILLINOIS

BY VIRGINIA, UNDER THE ARMS OF COL. GEORGE ROGERS CLARKE.

THOUGH complete success had attended him thus far, yet how critical was the situation of Clarke! With a small army, far in the enemy's country, the most perilous objects for which he aimed still before him, the least faltering, the least disaffection, might have robbed him of his victory, and perhaps have overwhelmed him with ruin! But his sagacity and address never forsook him, and seldom, if ever, has there been a display of greater.

* In the address as delivered there was a conclusion of several pages in relation to the Mechanic Arts; but our paper is so long we will not insert it here, nor is it necessary. We however, referred to the mechanic classes, in something like this: "Of American Mechanics, it would be easy to extend the list, and speak of Fitch, the clock maker, who first conceived the idea of a steamboat, and experimented in our waters; of Oliver Evans, the wagon wright, who found out how to adapt steam to land locomotives, and predicted as early as 1802, "The time will come when people will travel in stages moved by steam engines from one city to another, almost as fast as birds fly, fifteen or twenty miles an hour. A carriage will set out from Washington in the morning, the passengers will breakfast at Baltimore, dine at Philadelphia, and sup in New York, the same day;" of Samuel Slater, the apprentice of Arkwright, and the father of American cotton manufactures; of David Bushnell, who terrified the British on the Delaware shore by his "infernal" torpedo; of Whittemore, the contriver of the card machine; Perkins the nail machinist; Blanchard and Eckford; or, referring to those across the water, a mere mention is sufficient, of Sweaton, Ferguson, Crompton, Edwards, Arkwright, Watt, Brindley, Ramsden, Stanhope, Hohlfield, Boulton, Telford, Cartwright, Whitehurst, Bramah, and a host of others, consecrated to art. It was asked but a short time ago, by some of our journals, and answered—Who are the mayors of London, Glasgow, Edinburg, and Perth—mechanics; so also were the mayors of New York, Washington, Savannah, Charleston and Boston.

He looked forward to the reduction of St. Vincent's ; and in order to justify his invasion with so meagre an army, and to maintain his ascendancy, he instructed his men to speak of the Falls of the Ohio as his head-quarters, whence he could obtain reinforcements. In the mean time he established courts, with judges chosen by the people, and so ordered affairs as to conciliate their favor.

In order, then, to prevent the appearance of rashness, he pretended to be planning an expedition from the Falls against St. Vincent's. But this M. Gibault, the priest, thoroughly won to the American side, represented as useless, and promised to bring over St. Vincent's without a blow being struck against it. This proffer was gladly accepted ; but perhaps not too readily, and on the 14th of July, 1778, the priest, with a Dr. Lafont as an associate, and a spy sent by Clarke, started for St. Vincent's. The mission was so successful, that in two or three days the inhabitants threw off the authority of Great Britain, and took the oath of allegiance to the Commonwealth of Virginia. A commandant was elected, and the American flag displayed, much to the surprise of the Indians. But they were soon informed by their French friends "that their old father, the King of France, was come to life again, and was mad with them for fighting for the English ; that if they did not wish the land to be bloody with war, they must make peace with the Americans."

The time for which the soldiers had been enlisted had now expired. In his situation, it was necessary for Col. Clarke to exercise large discretionary powers, and he re-enlisted the men on a new footing, and also raised a new company of the residents, officered among themselves. He proceeded to garrison Kaskaskia and Cahokia. Those who wished to return were sent back under Col. William Linn, a volunteer, with orders to erect a stockade fort at the Falls of the Ohio, which they accomplished on the spot where Louisville now stands. M. Rocheblave was sent to Williamsburg under charge of Captain Montgomery. Clarke wished to treat him with respect and generosity, and to restore to him his slaves, but he behaved with such haughty insolence, that all such friendly intentions were abandoned. His slaves were sold for £500, which was distributed as prize money.

About the middle of August, Clarke appointed Helur, an excellent and prudent officer, in whom he greatly confided, the commandant of St. Vincent's, intending to give him a suitable garrison, as soon as he was able. These two officers now devoted themselves to the difficult but important task of conciliating the Indians, and disabusing them of the misrepresentations of the English "evil birds," as the emissaries were styled.

To a deep knowledge of human nature. Clarke added an intimate acquaintance with the Indian character, and by his bold address and profoundly wise policy, he accomplished more than the force of arms could have done. He gained the favor and excited the admiration of the most distinguished, and even of some of the most exasperated chiefs. The "Grand Door of the Wabash," son of the great Pontiac, "Big Gate," "Black Bird," and several others were successively brought over, and admitted that their minds had been poisoned against the "Red Knife"

Many of the conferences with these chiefs are fraught with interest, and disclose a tact and influence on the part of Clarke truly wonderful. I can mention only one instance. A party of Meadow Indians had been bribed to murder Clarke, but having been detected, were put in irons, and every day brought to the council. At length, when brought before Clarke, he ordered their manacles to be taken off, and told them: "Everybody said they ought to die for their treacherous attempt upon his life, amid the sacred deliberations of a council. He had determined to inflict death upon them for their base attempt, and they themselves must be sensible that they had justly forfeited their lives; but on considering the meanness of watching a bear and catching him asleep, he found out that they were not warriors, only old women, and too mean to be killed by the 'Big Knife.' But as you ought to be punished for putting on breech-cloth like men, they shall be taken away from you; plenty of provisions shall be given you for your journey home, as women don't know how to hunt, and during your stay you shall be treated in every respect as squaws." Then, without taking any further notice of these offenders, Colonel Clarke turned off, and began to converse with other persons. This treatment appeared to agitate the offending Indians to their very hearts. In a short time one of their chiefs arose, with a pipe and belt of peace, which he offered to Clarke, and made a speech; but at that time Clarke would not suffer it to be interpreted, and a sword lying on the table, he took it up and indignantly broke the pipe, which had been laid before him, declaring: "The Big Knife never treated with women." Several chiefs of other tribes now interfered to procure the pardon of the Meadow Indians, and to solicit Colonel Clarke to pity the families of these men, and grant them peace. Still the American officer, profoundly alive to the vulnerable features of the Indian character, told them "the Big Knife had never made war upon these Indians; and that whenever Americans came across such people in the woods, they commonly shot them as they did wolves, to prevent their eating the deer." This mediation having failed, the offending tribe appeared busy in conversation among themselves, when suddenly two of their young men advanced into the middle of the floor, sat down, and flung their blankets over their heads, to the astonishment of the whole assembly, when two chiefs arose, and with a pipe of peace, stood by the side of these victims, and offered their lives to Colonel Clarke, as an atonement for the offence of their tribe. This sacrifice, they hoped, would appease the Big Knife, and they again offered the pipe. Clarke would not yet admit a reconciliation with them, but directed them, in a milder tone than before, to be seated; for he would have nothing to say to them. "The alarm of these people appeared," said Clarke, "wrought up to so high a degree, that they appeared to think the tomahawk was suspended over the head of every one of their tribe, and that nothing but peace would save them." They thought that by putting these two young men to death, or keeping them as slaves, our countrymen might be reconciled. The offered victims kept their position, only now and then putting out their heads, as if impatient to know their fate. This affecting and romantic incident embarrassed the ready mind even of

Clarke ; he had always, he says, intended to be persuaded to grant these Indians peace, but with a reluctance that should enhance its value. The assembly was all silence and suspense, with anxiety to know the fate of the victims ; while Col. Clarke, deeply affected with the magnanimity of these rude children of the forest, declares he " never felt so powerful a gush of emotion over his mind, or ever so incapable of speaking, from the impulse of feeling." He ordered the young men to arise and uncover themselves ; he then said " he rejoiced to find that there were men in all nations ; that these two young warriors (pointing to the victims), who had been offered by their tribe, were at least a proof for their own countrymen. Such characters were alone fit to be chiefs, and with such he liked to treat ; through them the Big Knife granted peace to their tribe, and he took them by the hand as the chiefs of their tribe." They were immediately introduced (with no slight change of countenance, which they could not, with all their efforts, entirely suppress) to the American officers, as well as to the French and Spanish gentlemen who were present, and lastly, to the other Indian chiefs. They were saluted by all as the chiefs of their tribe, and Clarke immediately held, with great ceremony, a council, in which peace was settled with their people, and presents granted to distribute among their friends. Colonel Clarke was afterward informed that these young men were held in high esteem by their people ; and that the Americans were much talked of on account of this incident.

For his success with the Indians, no doubt Col. Clarke was much indebted to the friendship of the French. To M. Gibault the Legislature gave a vote of thanks for his valuable services.

The government of Virginia were duly apprised of the successes of her arms, and in October, 1778, an act of assembly was passed to establish the County of Illinois.

The law recited the deeds of the gallant little band, and provided that a temporary government, adapted to the situation and wants of the people, should be erected ; that their religion and civil institutions should be respected ; that protection should be extended to them ; and goods supplied to them and the friendly Indians. Perhaps the establishment of this extensive *county* may sound strange to some of our readers, but in those days such cases were not uncommon. Tennessee was once the " County of Frankland," belonging to North Carolina. Kentucky was once a county of Virginia, and it, together with a large part of Western Virginia, was once embraced in the County of Fincastle, which was divided in October, 1776. The settlements planted near the Atlantic gradually spread into the interior. That part which was populated was divided off into parishes and counties of convenient size, and then there was a vast frontier county, embracing the rest of the territory. Thus, even the County of Henrico was once the frontier county, and included many of the counties now laid off to the west of it.

In December, 1778, Gov. Hamilton, the British commander at Detroit, made an expedition against St. Vincent's, and re-took it. Of the defense made by Helur there is the following anecdote :

A man named Henry, constituting his whole garrison, planted a cannon in the open gate of the fort while Helur stood by with a

lighted match. They boldly challenged Hamilton to "halt." He demanded a surrender, but Helur answered that no one should enter there until he first knew the terms; whereupon Hamilton replied that they should have the "honors of war." What must have been Hamilton's surprise and mortification when only two men marched out with the "honors of war!" Such is a specimen of Clarke's followers.

But a storm now seemed to be gathering over them. Hamilton was raising a large force of British and Indians, and laying up stores and ammunition, not only for the ruin of Kaskaskia in the spring, but for the reduction of Fort Pitt, and even of all West Augusta. For this great scheme, his preparations were truly formidable, and but for Clarke's opportune victory, it is impossible to predict what would have been the consequences to Virginia. Two hundred Indians from Michilimachinac, and five hundred Cherokees and Chickasaws were to join the British, and cannon and every equipment were furnished by the Governor of Canada. Clarke made all the preparation he could, by concentrating his force, and fortifying his position. Without assistance, or even any communication from Virginia (in a letter to Gov. Henry of April 29th, 1779, he says that he had not heard from the executive for nearly twelve months), his situation seemed almost hopeless; but his heart quailed not. Fortunately, Col. Vigo, a Spanish merchant, arriving from St. Vincent's, informed Clarke that Hamilton, in order to keep his gathering forces employed, had dispersed them against Kentucky, and to guard the Ohio. With that firmness and decision for which he was so conspicuous, Clarke determined at once to attack him; "For," said he, "I knew if I did not take him, he would soon take me." As soon as the expedition was resolved on, the citizens of Cahokia and Kaskaskia raised two companies for it. A large Mississippi boat was fitted out as a galley, mounted with four guns, and manned by forty-six men, under Capt. John Rogers. They were to force their way up the Wabash, nearly to the mouth of White river, suffer no one to pass, and to wait for orders.

On the 7th of February, 1779, with only 170 men, French and Americans, the march was commenced. The season had been wet, but, fortunately, the weather was then comparatively mild. Still, their route lay across the submerged lands of the Wabash, and they were compelled to wade miles through the water, from two to four feet deep, and which must have been most uncomfortably cold. Though unincumbered with baggage, and filled with the ardor of self-preservation, such were the difficulties of the journey, that their progress was slow. When they reached the Little Wabash, the fork of the rivers was covered with water, which extended five miles from bank to bank. Much amusement was created by the fertile expedient of a little drummer, who mounted the head of his drum and was safely ferried along by some of his taller comrades. The fatigues of the march were also greatly relieved by festivities, dances, and games. Still, it required all Clarke's remarkable power and address to sustain the spirits of his soldiers. On the 18th, after surmounting obstacles and enduring hardships scarcely inferior to those which have immortalized the march of Hannibal through the Thrasimene

marsh, they came within nine miles of their destination; but a large body of deeper water still stretched before them. Canoes in sufficient quantity could not be procured, and nothing was seen of the galley. If they waited to build boats, they might starve for want of supplies. From the captain of a boat they learned that the French inhabitants were very friendly disposed, and this gave them courage; but, on examination, the water was found to be up to their arm-pits. The difficulty and fatigue of wading in running water of such depth are incalculable; and in an unguarded moment, Clarke gave way to expressions of despondency, which instantly affected the whole troop. But perceiving his error and dilemma, he mixed some powder with water, blacked his face, and ordering the officer next to him to follow his example, plunged in. This droll device diverted their desponding thoughts, and the whole followed without a murmur. A favorite song was raised, and every voice joined in the chorus. When they had reached the deepest part, whence it was intended to transport the men in two canoes—all they had—a foot-path was discovered by their tread, and rightly supposing it to pass over the highest ground, they followed it, till it brought them to the "sugar camp," where they found about half an acre above water. Here they rested. On setting out again, Clarke made an animating address; but his eagle eye, perhaps, detecting signs of faltering, he ordered Bowman to fall back with twenty-five men, and to shoot every man who refused to go forward. This order, however, was received with huzzas, and every man followed his intrepid leader. As they advanced, the inspiring, but deceptive intelligence was given, that the water was getting more shallow; and again would arise from the front, the seaman's cry of "land! land!" and until they discovered its design, the cry that broke forth from the foremost ship of Columbus, as it first approached the new world, was scarcely more cheering.

When, after a toil of five days, as some historians say, others three, they reached the opposite shore, many fell forward completely exhausted, their bodies still half immersed in the water.

Whenever they could get hold of pieces of floating timber, they derived some support; but much of the way they had nothing to lay their hands on. Half of a buffalo, which they had captured with some corn in a canoe, made into broth, greatly refreshed their famished and exhausted frames. And now, being so near the object for which so much had been undergone, every man was the more resolved to do his part.

By a prisoner, Clarke sent a bold message to the town, "that he would take possession of it that night." This produced the desired effect of enhancing their idea of his strength, and encouraging his friends. It was not thought that the expedition had come from Kaskaskia, in the existing stage of water, but that it was a larger one from Kentucky; and the friends of the British were even afraid to give information of its arrival to the fort.

On the evening of the 23d, before marching against the town, in order to increase the appearance of their numbers, the little band were marched and counter-marched around an eminence in view of the town, at the same time displaying several sets of colors brought by the French. At seven o'clock the attack was made. The town

surrendered with joy, and assisted in the siege of the fort. The attack was commenced on the fort by only fourteen men, under Lieut. Bailey; but the British attributed it to the idle salute of some drunken Indians, who had before acted in a similar manner, until a man was shot dead through a port hole. Helur and his large garrison, Henry, were still prisoners. Through Henry's wife, who lived in the town, but every day had access to her husband, Clarke got information respecting the fort, and the situation of Helur's quarters. Helur is said to have been much addicted to apple-toddy; and one of Clarke's men asked permission to let them fire, and knock a little dust into Helur's toddy; for he knew he had some on the hearth. Helur and Hamilton were engaged playing piquet. When the bullets began to rattle against the chimney, Helur jumped up, swore it was Clarke, and they would all be taken; "but the d—d rascals had no business to spoil his toddy." Seeing some of the garrison at the port-holes, Helur told them to take care, or their eyes would be shot out. Just then, one of them did have his eye shot out; whereupon Helur exclaimed, "I told you so." These incidents within, no doubt, aided the assailants without. Hamilton had appealed to Helur, to know "if Clarke was a merciful man."

The besiegers had nearly exhausted their ammunition, and the galley had not yet arrived; but luckily, whether by accident or design, a supply that had been concealed by the French was found, and the assault became more vigorous. As soon as a port-hole was opened or darkened by a form, the rifle bullets told with unerring effect.

After the moon had gone down, Clarke threw up an intrenchment within rifle-shot of one of the strongest batteries of the fort, and at morning poured in such a shower of well-aimed shot, that in fifteen minutes he silenced two pieces of cannon, without having a single man even wounded. Clarke demanded a surrender, but Hamilton haughtily replied, "that he would be awed into nothing unbecoming a British subject." The assailants were now eager to storm the fort, but Clarke wisely repressed such rashness, waiting for the arrival of the galley with the artillery. But Hamilton, finding his guns so badly mounted as to be almost useless, while the rifles proved most fatal, proposed a truce of three days, which Clarke refused, and demanded a surrender at discretion. Hamilton then asked a parley, and a meeting was held in the church, a Major Hays, Helur, and other officers being present. Hamilton still refusing Clarke's terms, Helur endeavored to soften them, but was reminded that he was a prisoner, and had no right to speak on the subject. Hamilton then offered to release him, but Clarke would not accept his release on such terms. Notice was then given that the firing upon the fort would be resumed in fifteen minutes. When they were about to separate, Hamilton asked Clarke, privately, why he had rejected his liberal offers. "Because," said he, with assumed severity, "I know that the principal Indian partisans from Detroit are in the fort; and I only want an honorable opportunity of putting such instigators of Indian barbarities to death; the cries of widows and orphans made by their butcheries, require such blood at my hands."

"Pray, sir," inquired Major Hays, "whom do you mean by Indian partisans?"

"I consider Major Hays one of the principal," said Clarke.

Hays, alarmed at this cutting and unexpected reply, turned pale, and trembled so that Hamilton blushed for him, and the indignant Bowman could scarcely restrain his contempt.

Clarke now told Hamilton that he would submit his proposals to a council of war, and send the result with a flag. A council having been held, it was agreed to moderate Clarke's terms; and the fort was surrendered on the 24th of February, 1779. The American flag was hoisted, and thirteen cannon (that still honored number) fired in commemoration of the victory.

In the midst of the attack on the fort, one of the detachments of Indians employed by Hamilton, came marching in with two prisoners. Much to their astonishment, they were soon attacked and dispersed, nine of them being taken, and the two prisoners released.

Other auspicious circumstances attended this brilliant success. A convoy of goods was on its way from Detroit. Clarke dispatched sixty men, in boats mounted with swivels, who intercepted and took it. The mail from Canada to Gov. Hamilton was brought to Clarke, and their joy still farther augmented by the safe arrival of his express to the Governor of Virginia, bearing the vote of thanks of the General Assembly for their gallant reduction of the country about Kaskaskia. Such a series of fortunate occurrences, together with their preservation during their tedious and perilous march, well justify the belief that they were shielded and guided by Heaven. He who views the whole history of our Revolution, with a proper recognition of God's governance over nations, must be convinced that it was the providential direction of a great movement in human progress.

By the various successes at St. Vincent's, one hundred and nineteen prisoners in all, a quantity of military stores and goods to the value of £100,000, fell into the hands of the victors; the powerful armament of Hamilton was prevented, and the coming spring, instead of witnessing his threatened devastation of Kentucky and "West Augusta," saw him and his principal officers captives in Williamsburg. Hamilton was a brave man and accomplished officer; but Girardin says he possessed a barbarous and tyrannical disposition. He is spoken of, also, as the chief instigator of the enormities perpetrated by the Indians. From these grave imputations, Professor Tucker, who knew him personally, vindicates his character. But though he may not have been the incarnate fiend which some represent him, still his conduct deserves the severest condemnation. His conduct in refusing to give his parole in Williamsburg, shows his imperious and contemptuous disposition; and this may well have led him to the acts laid to his charge. While he was in custody, Governor Jefferson thought it right to retaliate upon him for some of the cruelties inflicted upon American prisoners.

Detroit alone remained unconquered; and Clarke would then have led his eager and elated troops against it; but as his force was small and reinforcements had been promised by the Governor of Virginia, he concluded to wait for them. From information afterward received there was no doubt that an expedition against Detroit would have

been successful ; but it was then too late to seize the golden opportunity, for the post had been reinforced and strengthened.

Helur was once more put in command of St. Vincent's, and Clarke returned in his galley to Kaskaskia.

By these conquests the jurisdiction of Virginia was extended over the territory now comprised in the States of Ohio, Indiana and Illinois, and maintained until the close of the Revolution. Had she not undertaken them, it is hardly probable that the Continental arms would have been turned in that direction ; and besides the continuance of the Indian ravages, Great Britain, at the close of the war, would have been in possession of that large and immensely valuable region. Would she ever have relinquished it by the treaty of peace in 1783 ? It can hardly be supposed that she would. She has never shown such a disposition to relinquish her footing here, when she had claims for it ; and she would have held Illinois as she does Canada and a part of Oregon. It may be said that the States would not have concluded peace without obtaining a title to territory thus situated. They would not now ; but in 1783 their situation was far different ; and those principles of territorial extension since and now so strong, then had no existence. The States, too, after the peace, still had English and French and Spanish territory all around them. It is true, that the County of Illinois was within the chartered limits granted to Virginia ; and when Gov. Henry first sent Clarke against it, he said that its inhabitants certainly were within the limits of Virginia. But Great Britain, deriving a title to it through France, and being in possession of it at the close of the war, would not have respected the charter claim of a revolted Colony derived from herself. These achievements, then, by the *unaided* arms of Virginia, while they confer such glory upon Clarke and his followers, have also brought this wide and fertile territory to the Union, to which Virginia generously gave it. This will farther appear, when we advert to the efforts made by France and Spain, in behalf of themselves and England, to deprive us, in the treaty of peace, of some of the rights and possessions which we now hold most dear. They even desired to confine our young republic east of the Alleghany mountains ; and but for the firm and patriotic resistance of John Jay, our borders might have been far different from what they were. It must at least be admitted that whatever claims we had west of the Alleghany, were greatly strengthened by the conquest of Illinois, which must have operated materially upon the negotiation. Even after stipulating to surrender her posts in the North-west, with what dilatory reluctance did England relinquish them. Mr. Jefferson, when governor, foresaw the importance of fortifying our western claims, and, in 1780, sent Clarke to establish Fort Jefferson, on the Mississippi, five miles below the mouth of the Ohio, to secure our claim to the " Father of Rivers," as our western boundary.

When Prescott had finished his Conquest of Mexico, he hesitated to break the unity of history by proceeding farther with the life of his hero, Cortes. To compare small things with great, if I were writing regular history I might not be encouraged even by his successful example, to proceed farther with the life of Clarke ; but if my readers be not already as tired wading through this narrative, as

Clarke and his men were through the waters of the Wabash, perhaps they may inquire, what became of the victor of Kaskaskia and Vincennes? He died at his residence, near Louisville, Kentucky. He planned and conducted many other expeditions; among them a prosperous one against the Indians at Chilicothe, in Ohio. But some of them were unfortunate. Indeed, he seems to have lost some of the decision and energy for which he had been distinguished; being weakened, perhaps, by too great an indulgence in conviviality. He attained the rank and honor of General; and was no less useful and efficient in many civil employments than in military. He was dissatisfied with the return made him by Virginia, and it is said that his private property was swept away by suits for public supplies, owing to the delay in settling his accounts.*

A sword had been voted him in 1779; but afterward, in mortification and discontent, he broke it and threw it away. How unworthy this was of the Clarke of 1778;—and he seems himself to have thought so;—for a man should have something of the same feeling toward his country that Job had toward God, “Though he slay me, yet will I trust in him.” If he be a patriot only when he receives or expects smiles and favors, his patriotism does not deserve the name. But Clarke was, in many respects, an uncommon man, and entitled to earlier remuneration for his valiant services, for which we should honor him and cast the veil of charity over failings which were not a part of his original character. In 1812 the Legislature voted him another sword with appropriate devices, and a pension of \$400 a year; and afterward a grant of land opposite to Louisville, in the country which he had conquered.

ART. III.—PRODUCTIVE ENERGIES AND SPIRIT OF MASSACHUSETTS.

DURING the past summer we had the satisfaction of visiting Massachusetts, and inspecting for ourselves the extraordinary enterprise and industry which has given it character among the first of ancient or modern States. All the documents were kindly put into our possession by the Hon. J. G. Palfrey, Secretary of State, from which the most complete notions may be formed. Whatever displeasure as a Southerner we may have expressed, and however often we may have expressed it, in relation to the unauthorized and illiberal course pursued by Massachusetts in reference to our institutions and our rights, we cannot but admire her in the position in which she is truly admirable, and publish her honor to the world. As a great sister of our confederacy, we are bound to respect and love her, despite even of her faults. The paper which we now present will be in this spirit of candor and fellowship, and it is our intention to present similar papers, having a like reference to each of the States of our Union. In this matter, as in others, we must solicit the aid of our citizens.

The State is supposed to have derived its name from one of its

* Clarke had, perhaps, been rather bold sometimes in “assuming responsibility” for the State; and then, too, those who best knew and appreciated his services, were succeeded in office by others who felt less interest in his affairs.

tribes of Indians. The stormy and troubled periods of its early history will be at once called to memory. Bancroft, one of her own sons, has done ample justice to this epoch—moderating, as much as could be, the asperities it so frequently presents.

There are fourteen incorporated counties in the State, their charters dating from 1643 to 1812. There are also an immense number of towns or districts, presided over by Selectmen, from 3 to 7 in number each.

The college and school system of Massachusetts is the most complete of our times. A Board of Education was established in 1837. Large annual volumes of Reports and Abstracts have been published regularly from that time. The Secretary of the Board, Horace Mann, has published, for several years, an Educational Journal. There are also Normal schools and Teachers' Institutes, for the preparation of instructors. The number of lyceums and public libraries in the State evidences the great educational spirit. There is an Athenæum, an Academy of Arts and Sciences, a Society of Natural History, and three Musical Associations in Boston, also an American Oriental Society, an American Statistical Association, and a Historical Genealogical Society. There are three Historical Societies in the State: at Boston, at Dorchester, and at Salem; also an American Antiquarian Society at Worcester. The following table will show the number of Agricultural Societies, and the amounts they have received from the State's munificence:

AGRICULTURAL SOCIETIES OF MASSACHUSETTS.

	Date of incorporation.	Date of First Payment.	Total amount received.
Massachusetts Society for promoting Agriculture	March 7, 1792.	Oct. 29, 1817	\$18,300 00
Western Society of Middlesex Husbandmen	Feb. 28, 1803	Jan. 12, 1820	14,340 80
Name changed to Society of Middlesex Husbandmen and Manufacturers ...	Jan. 24, 1820		
Berkshire Agricultural Society*	Feb. 25, 1811..	Oct. 29, 1817	13,736 50
Hampshire, Franklin, and Hampden Agricultural Societies	Feb. 19, 1818..	Oct. 13, 1819	16,900 00
Worcester Agricultural Society	Feb. 23, 1818..	Jan. 12, 1820	16,200 00
Essex Agricultural Society	June 12, 1818..	Jan. 12, 1820	15,140 40
Agricultural Society in the County of Plymouth	June 11, 1819..	Oct. 27, 1820	12,824 49
Bristol County Agricultural Society ...	June 14, 1823..	Nov. 9, 1824	7,346 32
Agricultural Society of the County of Hampden	March 5, 1844.	Nov. 21, 1844	1,200 00
Barnstable County Agricultural Society	March 15, 1844	Feb. 11, 1845	468 00
			<hr/> 115,816 61

There are two Horticultural Societies; the Fair of the one at Boston, in September last, we attended, and were surprised to witness the show of splendid fruits and flowers from such a region. There are two Institutes for the Insane. We cannot even refer to the various religious associations. Mr. Elliott, of Boston, estimates the

* The cattle show and fair of this Society, at Pittsfield, in 1814, was the first held in this country.

charities of Boston for thirty years past at near \$3,000,000 in all, private and unseen benevolence being of course not included in the estimate. Among the numerous societies we note one for the *prevention of pauperism*, one for *penitent females* (we suppose of the town), and one for the *aid of discharged convicts*. The *Non-Resistance Society* is characteristic, as is also the *Anti-Slavery*, with 25 auxiliary, and God knows how many *Abolition Societies*, which began, perhaps, as *Anti-Slavery*. There is a *Society for the Abolition of Capital Punishment*. Massachusetts abounds in Banking Institutions, as we shall see by-and-by. There are 38 Institutions for Savings in the State. The Railroad Corporations would occupy a chapter of themselves.

The following table and extract is taken from Dr. Chickering's admirable work published last year.

POPULATION OF MASSACHUSETTS, BOSTON, &C.

Years.	MASSACHUSETTS.				BOSTON.				COUNTRY TOWNS.			
	Census.	Increase in 10 years.		Average increase per cent. per an.	Census.	Increase in 10 years.		Average increase per cent. per an.	Census.	Increase in 10 years.		Average increase per cent. per an.
		Amount.	Per cent.			Amount.	Per cent.			Amount.	Per cent.	
1790	378,797	....	....	....	18,820	....	....	....	380,467	....	....	....
1800	422,845	44,058	11.63128	1.1063	24,837	6,017	26.11889	2.122	297,908	37,441	10.36680	.9980
1810	472,040	49,195	11.63428	1.1085	33,787	8,950	26.42943	2.983	426,283	49,345	10.13827	.9704
1820	525,387	53,247	10.85649	1.0559	43,398	9,611	22.16294	2.511	479,289	41,736	8.52328	.8137
1830	610,408	87,121	16.64979	1.5519	61,392	18,094	41.75945	3.553	549,016	69,927	14.89098	1.3537
1840	737,700	127,292	20.85359	1.91219	83,383	31,991	52.10030	4.359	644,317	85,301	17.35851	1.6188
Increase in 50 Years	359,913	94.75	....	....	75,063	400.73	....	....	263,850	78.74	....	....
Census, 1790	378,797	....	....	....	18,820	....	....	....	380,467	....	....	....
Census, 1840	737,700	....	....	....	83,383	....	....	....	644,317	....	....	....

It will be seen that the increase of the whole population for the first 10 years was nearly equal to that in the 2d period of two months' less duration, but greater than that in the third, which alone embraced ten years and two months. In the last two periods, there was decidedly a larger increase than in either of the first three periods. The increase of manufactures from 1820 to 1840, greatly checked the emigration to other States.

The increase of Boston and other parts of the State, from 1810 to 1820, was decidedly less than during any other period; and during the last two periods it was decidedly greater than during the first two periods.

By adopting 244,149 as the population of Massachusetts in 1765, we find that the increase in the twenty-five years was 134,638, from which we deduce the average increase of 9.1811 per cent. in five years; of 19.9064 per cent. in ten years; and 42.0992 per cent. in twenty years. In thirty years the increase at the same rate would be 169,415, or 69.3920 per cent. At the average rate of 9.1811 per cent. increase in five years, the number would be 266,565 in 1770; 291,039 in 1775; 317,760 in 1780; 346,934 in 1785.

The average increase of Massachusetts, in each period of ten years, from 1765 to 1790, was 19.2054 per cent.; and from 1790 to 1840, 14.2606 per cent.

The average increase of Massachusetts, in each period of twenty years, from 1765 to 1790, was 42.0992 per cent.; and from 1790 to 1840, 30.5551 per cent.

The average increase of Boston in each period of ten years, from 1790 to 1840, was 38.506 per cent.; and of the rest of the State, only 12.3173 per cent.

The increase of Massachusetts, from 1765 to 1840, was 493,551, or 202.1515 per cent.; of Boston, 77,863, or 501.6945 per cent.; and of the rest of the State, 415,688, or 181.8177 per cent.

The average increase of Massachusetts, from 1765 to 1840, in each twenty-

five years, was 44.5688 per cent.; in each twenty years, 34.2950 per cent.; in each ten years, 15.8857 per cent.; in each five years, 7.6503 per cent.; and in each year, 1.4853 per cent. This last is .1433 per cent. per annum greater than 1.3420 per cent., the rate from 1790 to 1840.

It will appear from these statements, that the average increase of the population of Massachusetts was greater from 1765 to 1790 than it has been since. Had the rate continued the same the number would have been 911,749 in 1840. Also, the increase of Boston was, on an average, much less during the first twenty-five years than that of the other parts of the State, and much *greater* during the last two periods of twenty-five years each, showing a tendency to centralization in Boston.

The number of paupers in Massachusetts is large; 15,261 were supported by the State in 1846; net amount expended in their support, \$301,707 08, the State supplying \$33,852 of it. In all her precision and system we regret that Massachusetts excludes in her statistics all reference to her black population. Can this be designedly? Surely this class of population is sufficiently large there to attract especial notice. Why is there, then, not a single syllable in all of her documents relative to them? This is not so in slave States. We are not content here without knowledge of the condition, prospects, and improvement of the blacks. Does not Massachusetts owe it to her sister States to show the results of her benevolent systems upon those who were formerly her slaves, and whom, as she tells us, she has been endeavoring to improve? *Let us know their condition now, and their advances.* Let us see the results of your experiment. You are not silent in meddling with our affairs—excuse the want of courtesy betrayed in thus intermeddling in yours. *We want facts.*

Pass we now under review some of the volumes of Massachusetts State Documents,

1. *Statistics of her Industry*, published by the Secretary, 1845. These are not regarded complete by that officer, from the indisposition of manufacturers, &c., to give full information of their affairs.

PRODUCTS OF MASSACHUSETTS, 1845.

Articles.	Value.	Capital invested.	Hands emp.
Anchors, Chain Cables, &c.	\$538,966	\$ 377,685	422
Axes, Hatchets, and other edge tools	94,441	48,225	94
Beef, &c., slaughtered	225,918	..	..
Beeswax	981	..	..
Berries	10,842	..	..
Blacking	10,422	..	35
Bleaching or Coloring	2,166,000	200,500	211
Blocks and Pumps	127,249	..	204
Boats	82,943	..	164
Boots and Shoes	14,799,140	..	45,877
Boxes of all kinds	215,105	..	235
Brass articles	331,890	167,600	145
Bricks	612,832	..	1,407
Britannia Ware	102,550	49,350	93
Broom Seed and Brush	86,111	..	..
Brooms	200,814	..	313
Brushes	153,900	68,875	220
Butter	1,116,709	..	..
Buttons, metal	56,080	51,500	60
Butts or Hinges	25,390	3,500	49
Calico	4,779,817	1,401,500	2,053
Candles Sperm, and Oil	3,613,796	2,451,917	306
Candles Tallow, and Soap	836,156	405,872	343
Cannon	82,000	120,000	48
Cards	323,845	171,500	147

Articles.	Value.	Capital invested.	Hands empl.
Carpeting	\$ 834,322	\$ 488,000	1,034
Cars, Railroad carriages, & other vehicles	1,343,576	553,434	1,841
Chairs and Cabinet Ware	1,476,679	477,374	2,594
Cheese	398,174	.....	..
Chemical Preparations	331,965	251,700	113
Chocolate	81,672	47,500	27
Clocks	54,975	10,350	40
Coal, Mineral and Iron Ore	21,669	.....	78
Combs	198,965	73,100	340
Cooperage	269,935	.....	487
Copper	610,950	329,000	197
Cordage	906,321	543,930	647
Cotton Goods of all kinds	12,193,449	17,739,000	20,710
Cutlery	148,175	68,725	197
Dyeing	98,700	.....	114
Earthen and Stone Ware	52,025	15,500	72
Engines, Fire	37,800	.....	43
Engines and Boilers, Steam	208,546	127,000	221
Firearms	260,819	789,848	357
Fishery, Mackerel and Cod	1,484,137	1,238,640	7,866
Fishery, Whale	10,371,167	11,805,910	11,378
Flax	665	.....	..
Flour and other Grain	174,805	44,550	30
Fringe and Tassels	54,300	11,700	106
Fruit	744,540	.....	..
Gins, Cotton	45,444	75,000	49
Glass	758,300	700,200	630
Glue	387,575	283,675	93
Grain	2,228,229	.....	..
Hats and Caps	734,942	213,793	1,003
Hay	5,214,357	.....	..
Hollow Ware and Castings, other than Pig Iron	1,280,141	713,270	1,267
Honey	13,206	.....	..
Hops	32,251	.....	..
Hosiery and Yarn	94,892	42,500	238
Instruments, Mathematical, &c.	54,050	.....	68
Iron, Pig	148,761	155,000	235
Iron Railing, Fences and Safes	129,300	53,000	87
Jewelry, includ. Chronometers, Watches, Gold and Silver Ware	305,623	126,225	293
Lasts	80,145	.....	84
Latches and Door Handles	3,200	750	10
Lead Pipe, and Lead Manufactures.	90,880	72,700	59
Lead, White, and Paints	356,200	253,500	106
Leather	3,836,657	1,900,545	2,043
Lime	43,629	.....	80
Linen Thread	145,000	79,000	192
Linseed Oil	181,100	77,000	34
Locks	60,079	23,009	75
Lumber and Shingles	921,106	.....	2,506
Machinery	2,022,648	1,103,850	2,421
Maple Sugar	41,443	.....	..
Marble	220,004	.....	312
Milk	304,917	.....	..
Millet	8,476	.....	..
Musical Instruments	548,625	293,100	427
Oil, Lard	219,990	91,000	37
Oil (see Candles and Fishery) .....	.....	.....	..
Paper	1,750,273	1,141,537	1,369
Pens, Steel	15,000	5,000	12
Plows and other Agricultural Tools	121,691	58,575	159
Potatoes	1,309,030	.....	..
Poultry and Eggs	25,891	.....	..

464 PRODUCTIVE ENERGIES AND SPIRIT OF MASSACHUSETTS.

Articles.	Value.	Capital invested.	Hands emp ^d .
Powder	\$ 165,500	\$ 120,000	49
Rolled and Slit Iron, and Nail	2,478,300	1,906,400	1,729
Saddles, Harnesses and Trunks	422,794	144,540	648
Salt	79,980	399,285	584
Sashes, Blinds and Doors	180,181	.....	215
Scythes	113,935	96,590	171
Seeds	4,721	.....	..
Shoe Pegs	18,206	.....	.....
Shovels, Spades, Forks and Hoes	275,212	123,950	259
Silk, Raw	959	.....	.....
Silk, Sewing	150,477	38,900	156
Snuff, Tobacco and Cigars	324,639	.....	572
Soap (see Candles) .....	.....	.....	.....
Starch	119,940	37,500	39
Stone, Building	1,065,599	.....	1,849
Straw Bonnets and Hats, Palm-leaf Hats and Braid	1,649,496	.....	13,311
Sugar, Refined	940,000	410,000	106
Tacks and Brads	253,687	123,225	269
Teazles	3,308	.....	.....
Tin Ware	793,624	343,710	719
Tobacco raised	16,686	.....	.....
Tools, Mechanics'	161,899	.....	266
Upholstery	354,261	124,700	273
Vegetables, other than Potatoes	515,083	.....	.....
Vessels	1,172,147	.....	1,017
Whips	111,947	.....	596
Wood (Fire), Bark and Charcoal	1,068,656	.....	2,925
Wooden Ware	416,366	.....	606
Wool	365,136	.....	.....
Woolen Goods of all kinds	8,877,478	5,604,002	7,372
Worsted Goods	654,566	514,000	846
Stoves, Bread, Beer, Books and Stationery Balances, Matches, Lamps, Pickles, Paper Hangings, Types, Umbrellas, &c.	4,758,384	1,587,760	3,232
Total	114,478,443	59,145,767	152,766

2. *Railroad Reports.* There are annual volumes published. From the one published in 1847 for 1846, we note twenty-eight corporations. The fatal accidents on all during the year are nine—seven not fatal; others supposed not given. Among the information given is that relative to stock of companies, cost of roads and buildings, characteristics of roads, results of the year, expenditures, income, motive power, dividends, &c. All of these evidence wide prosperity, and deserve to be studied in every part of the Union. In 1818 there was not a single mile of railway in New England, save a short wooden track. The capital invested in railroads by Massachusetts men in 1846, was estimated at \$37,000,000; it must be now fast verging upon \$50,000,000.

3. *State Lunatic Asylum.* Six hundred and thirty-seven insane persons have had the privilege of the institution during 1846.

OCCUPATIONS OF THOSE ADMITTED.

	1846.	Previously.
Farmers admitted	30	272
Merchants	13	96
Laborers	31	178
Shoemakers	2	89
Seamen	13	80
Carpenters	8	57
Manufacturers	1	35

	1888.	Previously.
Teachers	3	31
Students	5	31
Blacksmiths	2	29
Printers	1	20
Tailors	1	14
Clergymen	2	12
Lawyers	0	6
Physicians	0	6
Females not accustomed to labor	0	177
Females accustomed to sedentary employment	4	240
Females accustomed to active employment	66	432
Many not classed, particularly females.		

4. *Common Schools.*—The Report of the Secretary of the Board, a considerable volume, contains the particulars in relation to all the school districts, &c. From the concluding pages we extract a passage :

“And the calamities which spring from ignorance, and a neglect of the social condition of the masses of the people, are no exception to this rule. Republics, one after another—a splendid yet mournful train—have emerged into being; they have risen to greatness, and surrounding nations have sought protection beneath the shelter of their power; but they have perished through a want of intelligence and virtue in the masses of the people. They have been delivered over to anarchy and thence to despotism; and because they would not obey their own laws, they have been held in bondage by the laws of tyrants. One after another, they have been blotted from the page of existence, and the descendants of a renowned and noble ancestry have been made bond-men and bond-women;—they have been dishonored and trampled upon, on the very soil still choral with the brave deeds of their forefathers. Has a sufficient number of these victim-nations been sacrificed, or must ours be added to the tragic list? If men had been wise, these sacrifices might have been mitigated, or brought to an end, centuries ago. If men are wise, they may be brought to an end now. But if men will not be wise, these mournful catastrophes must be repeated again and again, for centuries to come. Doubtless, at some time, they will come to an end. When the accumulation of evils shall be so enormous and overwhelming, that humanity can no longer endure them, the adequate efforts for their termination will be made. The question for us is, has not the fullness of time now come? Are not the sufferings of past ages, are not the cries of expiring nations, whose echoes have not yet died away, a summons sufficiently loud to reach our ears, and to rouse us to apply a remedy for the present, an antidote for the future? We shall answer these questions, by the way in which we educate the rising generation. If we do not prepare children to become good citizens;—if we do not develop their capacities, if we do not enrich their minds with knowledge, imbue their hearts with the love of truth and duty, and a reverence for all things sacred and holy, then our republic must go down to destruction, as others have gone before it; and mankind must sweep through another vast cycle of sin and suffering, before the dawn of a better era can arise upon the world. It is for our government, and for that public opinion, which, in a republic, governs the government, to choose between these alternatives of weal or wo.”

The volume of extracts from School Reports for 1844 contains 340 pages. That some idea may be formed of the immense labor expended upon it, the following extract is introduced :

On the 1st of May last, therefore, I found myself in possession of the School Committees' Reports for two years. Each set of these was more voluminous than for any former year. Together, they were equal to fifty-five hundred closely written letter-paper pages. Every one of these I have carefully read. Taken as a whole, they are documents of extraordinary interest and value. From them, the present volume of the Abstracts, more select than any of its predecessors, has been compiled. I earnestly recommend its perusal to every friend of popular education in Massachusetts—especially to all school committee men and teachers.

5. *Registration of Births, Marriages, and Deaths.*—These are volumes published annually. We have four of them before us—the one of 1842 being the first published under the State law. These cannot be too highly commended when properly kept. They present at all times an index to the actual condition of a people. The system of Massachusetts is deserving of universal imitation in other States, and we hope to see something of the kind before long.

The volume for 1845 contains an admirable letter to the Secretary, by that able statistician, Lemuel Shattuck, Esq., of Boston. We make no apologies for presenting to our readers some of the striking results which it unfolds :

PRODUCTIVE CLASSES.

From this statement it appears that, while the whole United States had 53.35 per cent. of the population of the productive class, between 15 and 60, Massachusetts had 59.65 per cent. and England 56.70; showing this State to be better situated, in this respect, than either. In the aged class it appears, however, that England had 7.90 per cent. while this State had but 6.74—a result in favor of the longevity of that country. Some counties compare better than others or the whole State. Boston has 64.65 per cent.—the greatest proportion of the productive class; and only 2.93 per cent.—the least of the aged.

PROPORTION OF BIRTHS, MARRIAGES, AND DEATHS, IN EUROPE.

STATES.	Period of Observation.	Annual number of Marriages, Births, and Deaths, to 100 persons living, or per cent.			Number of persons living to one annual Marriage, Birth, and Death.		
		Marriages. per cent.	Births. per cent.	Deaths. per cent.	Marriages. One in	Births. One in	Deaths. One in
England	1839-1842	.770	3.200	2.209	130	31	45
France	1840-1842	.825	2.837	2.397	121	35	42
Austria	1839-1841	.807	3.874	2.995	124	26	33
Prussia	1839-1841	.887	3.767	2.658	113	27	38
Russia	1842	1.013	4.284	3.590	99	23	28

MARRIAGES IN MASSACHUSETTS 1845—BELGIUM 1841.

AGE.	Number of persons married in				To 10,000 married, there were in			
	Massachusetts.		Belgium		Massachusetts.		Belgium.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Under 20....	53	690	757	2,685	198	2,543	312	1,105
20 to 25....	1,308	1,422	4,530	6,966	4,897	5,324	1,864	2,867
25 to 30....	952	446	9,420	8,067	3,564	1,670	3,877	3,320
30 to 35....	247	79	5,497	3,841	925	296	2,262	1,581
35 to 40....	81	17	2,488	1,719	303	64	1,024	707
40 to 45....	17	14	1,000	653	64	52	412	269
45 to 50....	8	2	340	225	30	7	140	93
50 to 55....	5	1	137	76	19	4	56	31
55 to 60....	..	..	56	27	..	..	23	11
Over 60....	..	..	72	38	..	..	30	16
	2,671	2,671	24,297	24,297	10,000	10,000	10,000	10,000

The number of births in Massachusetts in 1845, was 15,564; being 7,793 males, and 7,594 females.

In 1844 there was 1 case of twin births to	123 cases of birth.
" 1845 " " 1 " " "	to 129 "
" 1844 " " 1 " " triplets to	7,261 "
" 1845 " " 1 " " "	to 15,444 "
" 1844 " " 1 " " quadruplets to	15,523 "
" 1845 " " no case of " "	" "

"The births registered in England are in proportion to the population one-seventh part more numerous than in France, and one-seventh part less than in Prussia. To 3,525 inhabitants, 100 births are annually registered in France, 113 in England, 133 in Prussia, 136 in Austria, 151 in Russia. The small number of births in France is not accounted for by any difference in the proportion of the persons married, who are, in fact, more numerous in France than in any other country from which I have been able to procure returns. It appears that 100 French wives had 14 children, 100 Prussian wives 21 children, yearly; or, in other terms, 717 wives bore annually 100 children in France, 152 children in Prussia. If the births are divided by the annual marriages that took place seven years before, there were 3.33 births (in wedlock) to a marriage in France—4.05 to a marriage in Prussia, and 4.34 to a marriage in Austria; 4.26 to a marriage in England, and if a correction be made for first marriages, 4.79 to every two persons married. The total annual births in England, divided by the persons married seven years before, give on an average 5.12 children to every two persons married; and as many illegitimate children are the offspring of married persons before, during, or after marriage, the number of children to every two persons married in England must be between 4.79 and 5.12, or little short of five, about three of which attain the age of marriage to replace the two parents and those who have no offspring; the surplus swelling the number of the existing inhabitants of the island, or flowing in of emigration."

TABLE OF LONGEVITY.

Age surviving.	Number surviving each specified age, calculated from the deaths.						
	In Massachusetts.				In Preston, England.		
	1842.	1843.	1844.	1845.	Gentry.	Tradesmen.	Operatives
At Birth.	100.	100.	100.	100.	100.	100.	100.
1 year	86.43	86.51	83.74	82.38	90.8	79.6	68.2
2 years	81.76	79.42	76.69	74.67	87.6	73.5	57.5
5 "	72.64	70.71	69.46	65.26	82.4	61.8	44.6
10 "	67.62	64.99	65.13	61.01	81.1	56.6	38.8
20 "	60.56	58.63	58.21	53.98	76.3	51.6	31.5
30 "	48.34	47.32	47.30	42.12	72.3	45.9	25.2
40 "	40.40	39.01	38.78	33.73	63.4	37.5	20.4
50 "	32.87	32.28	32.56	27.67	56.	28.1	15.6
60 "	26.08	26.02	26.92	21.71	45.1	20.5	11.2
70 "	18.35	18.29	19.09	15.26	25.4	13.3	6.1
80 "	9.06	8.45	9.32	6.85	8.	4.5	2.1
90 "	2.03	1.64	1.83	1.35	1.3	.8	.2
100 " ....	.07	.08	.05	.07	..	..	..

It appears from this table, that in Massachusetts 60.56 per cent. in 1842 survived the age of 20, and only 53.98 in 1845; while in Preston 76.3 per cent. of the "gentry," 51.6 per cent. of the "tradesmen,"

and only 31.5 per cent. of the "operatives," survived the same age. In Massachusetts, 26.08 in 1842, and only 21.71 in 1845, survived the age of 60, while in Preston 45.1 per cent. of the gentry, 20.5 per cent. of the tradesmen, and only 11.2 per cent. of the laborers survived to that age. This shows that the people of Massachusetts do not enjoy so good health as the better classes in England, though better health than the laboring classes. The influence of circumstances and occupation on health and longevity, is strikingly illustrated by the statement concerning Preston. It appears that while 72.3 per cent. of the gentry survived 30 years, only 25.2 of the operatives, or laborers, survived the same age.

The following extracts are curious and interesting. They furnish the most powerful reasons for the preservation of life statistics, and the study of this important branch of knowledge.

"Man comes into existence a helpless being; arrives at maturity by the aid of others; exists in a state of maturity an indefinite period, and then decays and dies; 'the dust returns to the earth as it was.' This is the common lot of all. Life may extend to 70, 80, 90, or even 100 years: and it may terminate in a year, a month, or even in an hour. We know that we all must die; but the time of our death we do not know. It may come comparatively soon; it may not. We believe, however, that the time of our death, though unknown, is in some respects within our own control. We believe that disease and death come not from a mysterious, unconditional Providence, but are the result of the condition of our bodies, and the influences that are brought to bear upon them. Many of these influences we bring around us by our own voluntary choice. One person takes proper food, at proper times and in proper quantities; another indulges his appetite, and takes unwholesome food, at irregular intervals, and in injurious quantities. One person clothes himself so as to maintain a uniform temperature of the body at all times; another guards not against the changes in the temperature of the seasons, but allows himself to be alternately heated and chilled. One man selects a place of residence where the air he breathes is pure and invigorating; another, where the noxious impurities of the air carry disease and death to his vitals. One person keeps his skin in a healthy state by frequent bathing; another permits it to be coated over with impurities. One chooses an occupation which gives sufficient exercise, physical and mental, to keep all the energies of his body vigorous; another, one that requires too much labor for his physical nature, or has in itself unhealthy influences, or, in his occupation over-exerts himself so as to impair his physical and mental capacity. One man exposes himself to the contagion of small-pox, knowing, at the same time, that it is dangerous, takes the disease and dies; another vaccinates himself, and thus protects and saves his life. One man ventures upon the ocean without sufficient knowledge to manage his craft, and thus exposes himself to accidental death; another is cautious, and ventures no farther than safety permits. The act of the one in each case is favorable, and prolongs life; the act of another is unfavorable, and abridges it. And will not every one say that all these acts and influences for good or for evil, are more or less within the control of man?—that life may be saved and pro-

longed, and that the time of our death may, in some sense, be postponed? Numerous illustrations of this truth present themselves within the circle of our own knowledge. The late Rev. Dr. Ripley of Concord, when settled, in 1778, had a feeble constitution; and one man voted against him because he thought it useless to settle a man whose probabilities of living were so small. He, however, by great care and attention to his health, acquired a pretty good constitution, and survived his 90th year. He probably added 50 years to a life, which another man, under similar circumstances, would not have enjoyed.

"The tendency of our people is to become a manufacturing people; and manufactures have been so far investigated, that the cost of every article—material, transportation, labor, wages, board, &c.—is clearly known. But what amount of life is sacrificed thereby we know not. We do not know, though we ought to know, whether there exists, or whether there is any tendency to such a condition in any of our cities and towns, as would justify the remark of Mr. Chadwick, before quoted, making them 'characteristic of those crowded, filthy, badly-administered districts in England, where the average duration of life is short, the proportion of the young very great, and the adult generation transient.'

"The average age at death, as has been already said, is not to be taken as an exact index of comparison for the health of a place, unless we have the number, age, and condition of the living. It is, however, an interesting fact to be known, and we present, in the subjoined table, several calculations made from such data as are in our possession.

Period of Observation.	Number of Years.	Place and Circumstances.	Number of deaths.	Average age at death.
1779 to 1843	63	Concord	1,600	38.08
1813 to 1845	33	Plympton	494	41.00
1806 to 1836	33	Amherst, N. H.	815	32.00
1817 to 1843	27	Dorchester, Mass.	1,767	32.90
1842	1	Massachusetts Returns	6,986	34.77
1843	1	" "	7,796	33.83
1844	1	" "	7,699	33.74
1845	1	" "	8,388	30.96
1811 to 1830	10	City of Boston	8,090	27.25
1831 to 1830	10	" "	10,731	25.88
1831 to 1840	10	" "	16,314	22.72
1841	1	England	335,106	29.46
1841	1	Ireland		28.00
1841	1	London		27.00
1841	1	Liverpool		20.00
1814 to 1833	20	Geneva, Switzerland, males	5,319	38.44
1814 to 1833	20	" " females	5,688	42.68
1814 to 1833	20	" " both	10,907	40.67

"This statement affords another striking illustration of the influence of locality on longevity. Estimating, by the above average age at death, the value of life to be 100 per cent. enjoyed by the people of Plympton, then the people of Boston would, according to the age 1831-1840, enjoy but 55.41 per cent.; or, in another view, the people of Boston, on the average, live a less number of years by 44.59 per cent. than do the people of Plympton!

"But while we have all these surveys and maps, pointing out the boundaries of our counties and towns, the localities of our mineral

wealth, the best lands for farming and the production of domestic animals, and the existence of noxious and innocuous wild animals, we may ask where is the sanatory map which points out the healthy and unhealthy localities in the State, which will reveal to our people where and how human life can best be sustained and longest continued, and where and how human energy and productive power can be best brought to bear upon the culture and development of the sources of wealth in the State? Have we not said by such legislation that our cattle and our hogs are of more value than the lives of ourselves and our children? Have we not extended to the brute, whose worth is measured by dollars and cents, a species of legislation which has been withheld from man, who is of immeasurable value? When compared to investigations into the physical condition of man, all other investigations dwindle into insignificance.

"The population of Massachusetts may now be estimated at 800,000. From the returns of deaths received, I have estimated the whole number of deaths in the State last year to have been 14,000, which is nearly 1 in 57, or 1.75 per cent. of the population. Of these 14,000, there died at least 6,000 children and youth under 15 years of age. Estimating the average ages of the whole of these in the same proportion as those actually known, it will give for each about 4 years, or 24,000 years of life for all. This, at \$50 a year, amounts to \$1,200,000 as the cost of their maintenance. And all this sum was lost to the State last year by premature deaths, before any return could be made for it. Can any one doubt that half, at least, might have been saved by proper knowledge and care?

"The proportionate number of deaths among the young has been increasing for several years past in this country, as our investigations prove; and we see no reason to believe it will be less, until more knowledge is diffused in regard to the laws of life and the liability to death, under different circumstances. This immense loss of the productive power of the State, may be considered as an annual tax, which the people must pay every year, until they find out and use the means of prevention.

"It has been said that the strength and dignity of a nation consist not in its lands, its houses, its wealth—but in its people. And I have already stated, that that people is most prosperous which contains the greatest proportionate number of the productive age. In the above calculation, we have not taken into account the loss sustained by the death of those belonging to this age. This would greatly swell the amount of loss. We have stated that by care and attention the late Dr. Ripley probably added 50 years to his life. We are now considering time as money, labor as money, *life as money*, and not the real, moral value of that good man's services. Estimating, then, this time to be worth \$1 per day, or \$300 per annum, the 50 years of life were worth \$15,000, and that sum was saved by the prolongation of his life. The deaths in this State last year, as we have estimated, were 14,000. Of these 5,000 probably died between 15 and 60 years of age. Let us suppose that by proper knowledge of the laws of health, and a proper care in obeying these laws, 5 years might, on the average, have been added to each of their lives—and this seems not an extravagant supposition—then we should have

saved, instead of losing, as we have done, 25,000 years of life, which, estimated to be worth, in this adult age, only \$150 a year, would have produced \$3,750,000! And this loss must be annual!

"There is still another view of this great subject. William Farr, Esq., one of the ablest writers on Vital Statistics of the age, stated in McCulloch's Statistical Account of the British Empire, that 'when 1 person in 100 dies annually, 2 are constantly sick; although this exact relation is, perhaps, not preserved in infancy and old age, or where the rate of mortality deviates from the standard, it may be safely assumed as a near approximation to the truth.' This principle may be more simply expressed thus: the proportion of persons constantly sick in a population, is double the annual proportion per cent., which the deaths bear to the living in that population. According to the estimate already given, the proportion of deaths to the population in Massachusetts was 1 in 57, or 1.75 per cent. Double this per centage, and we have 3.5 as the proportion per cent.; and this proportion of 800,000 is 28,000, the actual number constantly sick in this State.

"Sickness occasions a twofold loss; one for the time and labor of the sick, and the other for the nursing, medical attendance, medicine, and other expenses, which they require. The first may be estimated at \$50, and the second at \$150, or \$200 per annum for both, which multiplied by the 28,000, give a total annual loss by sickness of \$5,600,000! It is supposed that half of this sickness is preventable, and that half of this enormous sum might be saved if the laws of health were properly understood and obeyed.

"We might save then—

By diminishing the mortality of infancy and childhood.....	\$ 600,000
By prolonging the lives of adults.....	3,750,000
By preserving the general health and diminishing sickness.....	<u>2,800,000</u>

Making, according to this view, an annual total saving of.....\$7,150,000

"This amounts in ten years to \$71,500,000 or about *one-quarter of all the property of the Commonwealth*, according to the valuation of 1840!"

6. The Banking System of Massachusetts is on the most enlarged scale. It would seem as if the people of that Commonwealth had the most unlimited confidence in this species of investment. The Legislature requires an annual statement of the condition of all these banks, and we have before us several of these annual publications. The number of Savings Institutions in 1846 was thirty-eight—their condition, &c., as follows:*

The number of depositors in all, 38 banks, was.....	62,893
Amount deposited in all, 38 banks.....	\$10,680,933 10
Public Funds.....	1,890,525 93
Loans on Public Funds.....	19,500 00
Bank Stock.....	1,909,620 72
Loans on Bank Stock.....	149,256 50
Deposits in Banks bearing interest.....	<u>94,520 61</u>

* We are indebted for this summary to a handsome volume, the Massachusetts State Record, 1847, compiled by Nahum Capen, Esq., who kindly furnished us a copy. It is made from the returns to the Secretary of State. We are also indebted to Mr. Capen for the summary of insurance corporations, &c.

472 PRODUCTIVE ENERGIES AND SPIRIT OF MASSACHUSETTS.

Railroad Stock.....	14,800 00
Loans on Railroad Stock.....	222,538 75
Invested in Real Estate.....	90,884 22
Loans in Mortgage of Real Estate.....	3,757,262 80
Loans to County or Town.....	818,041 96
Loans on Personal Security.....	1,930,072 86
Cash on hand.....	150,798 26
Rate and amount of ordinary dividend for last year, 4½ per ct.	345,443 10
Average annual per ct. of dividends of last five years, 5½ per ct.	
Annual expenses of Institutions.....	29,306 69

The condition of all other banks for 1846 appears in the annexed table.

BANKING SYSTEM OF MASSACHUSETTS.

DUE FROM THE BANKS.	25 Banks in Boston.	59 Banks out of Bust.	Total—105 Banks.
Capital stock paid in	\$18,180,000 00	\$12,980,000 00	\$31,160,000 00
Bills in circulation of five dollars and upward	5,677,668 00	6,651,717 00	12,329,385 00
Bills in circulation less than five dollars	696,018 00	1,566,511 50	2,262,529 50
Net Profits on hand.....	1,474,694 73	1,099,441 45	2,504,136 17
Balances due to other banks....	5,072,005 48	913,010 19	5,985,015 67
Cash deposited, including all sums whatsoever due from the banks not bearing interest, its bills in circulation, profits and balances due to other banks excepted.....	6,806,374 51	2,653,001 41	9,459,375 92
Cash deposited bearing interest .	740,237 18	161,034 80	901,271 98
Total amount due from the banks	38,646,997 89	26,254,716 35	63,901,714 24
RESOURCES OF THE BANKS.			
Gold, silver, and other coined metals in their banking-houses	2,437,073 39	617,683 29	3,054,656 68
Real estate	719,563 87	378,418 10	1,098,000 97
Bills of other banks incorporated in this State	2,394,802 78	240,256 38	2,635,059 16
Bills of other banks incorporated elsewhere	176,236 00	43,459 55	219,695 55
Balances due from other banks..	3,104,657 23	2,463,431 59	5,568,088 82
Amount of all debts due, including notes, bills of exchange, and all stocks and funded debts of every description, excepting the balances due from other banks	29,814,646 62	21,511,467 44	51,326,114 06
Total amount of the resources of the banks	38,646,997 89	26,254,716 35	63,901,714 24
Rate, amount and date of dividends since the last annual returns	1,163,500 00	692,790 00	1,856,290 00
Amount of reserved profits at the time of declaring the last dividend	1,151,642 10	655,561 65	1,807,203 75
Amount of debts due to each bank secured by pledge of its stock	396,075 85	345,460 69	741,536 54
Amount of debts due and unpaid, and considered doubtful	74,266 76	188,176 39	262,443 15

7. Insurance Returns.—We have three of these annual publications.

BOSTON INSURANCE COMPANIES, DECEMBER 1, 1846.

	Capital.	At risk—Marine.	At risk—Fire.	Fire losses last year.	Marine losses last year.
American.....	\$300,000 00	\$4,683,528 00	\$3,086,651 00	\$13,093 46	\$113,906 79
Boston.....	300,000 00	2,180,311 00	....	....	73,746 89
Boylston Fire & Marine.....	300,000 00	2,189,792 00	3,210,463 00	3,334 11	86,331 57
Firemen's.....	300,000 00	....	10,824,495 00	48,193 65	....
Franklin.....	300,000 00	1,672,675 00	3,711,883 00	11,897 64	46,168 51
Hope.....	200,000 00	492,265 00	....	....	3,895 58
Manufacturers'.....	400,000 00	1,954,411 00	12,391,773 00	51,854 00	58,417 12
Merc. Marine..	300,000 00	1,639,071 00	....	....	61,608 78
Merchants'.....	500,000 00	7,247,702 00	13,856,305 00	38,883 26	142,296 72
National.....	500,000 00	4,239,462 00	7,867,453 00	22,692 59	51,822 36
Neptune.....	200,000 00	6,933,110 00	4,331,862 00	7,407 41	328,548 40
Suffolk.....	225,000 00	1,022,658 00	542,815 00	972 37	39,465 77
Tremont.....	200,000 00	4,734,337 00	1,338,786 00	2,107 84	173,138 75
United States..	200,000 00	1,128,866 00	372,850 00	180 00	14,288 82
Warren.....	150,000 00	1,992,270 00	....	....	102,322 73
Washington...	200,000 00	2,365,778 00	....	....	78,320 39
	4,575,000 00	44,476,236 00	61,535,356 00	200,616 33	1,374,278 10

COMPANIES OUT OF BOSTON.

	Capital.	At risk—Marine.	At risk—Fire.	Marine losses.
Lynn Mechanics' Fire and Marine.....	\$ 50,000 00..	\$30,700 00..	\$14,450 00..	\$600 28
Marblehead Marine...	100,000 00..	56,550 00..	....	6,285 93
Essex, Salem.....	100,000 00..	311,770 00..	45,450 00..	24,559 91
Oriental ".....	200,000 00..	342,305 00..	....	1,681 41
Fairhaven.....	100,000 00..	....	....	228 07
New Bedford Com'l... ..	150,000 00..	2,334,153 00..	....	43,825 00
" " Mechanics'	100,000 00..	14,000 00..	....	8,868 61
" " Pacific....	100,000 00..	....	....	1,490 61
" " Whaling..	100,000 00..	613,637 50..	....	2,269 82
Plymouth, Old Colony	50,000 00..	139,245 00..	18,290 00..	5,332 67
Provincetown, Union.	75,000 00..	126,161 00..	....	4,611 03
Nantucket, Commer'l	75,000 00..	285,730 50..	....	5,957 81

\$1,200,000 00.. \$4,264,252 00.. \$78,190 00.. \$105,711 15

8. The *Agricultural Reports* we have already particularly referred to in previous pages of this number. We have several of them, which embrace a variety of the most interesting information.

9. We might properly conclude with the *Manufactures of Massachusetts*. None of the Reports are complete enough in this particular. It would be a source of great satisfaction to know the annual average profits now and hitherto in that species of industry throughout the State. We should learn the uses or abuses of the protective system, and determine how far it is necessary among us. We had the satisfaction of visiting Lowell a short time since, the most important manufacturing town in New England, and which consumes about one-sixth of all the cotton manufactured in this country. The history of this remarkable city, prepared by Mr. Miles, is worthy of study. It has grown in an amazing ratio. Scarcely more than 20 years have passed since the manufacturing system was opened there on a scale of any promise. We know its present stature. Mr. Miles states the semi-annual dividends of the companies to be frequently 10 per cent. for six months—or thus doubling the capital in five

years! It may be gathered from this what a mint of wealth exists here, and the fortunes of Massachusetts manufacturers. Hence the secret of Boston's greatness.

STATISTICS OF LOWELL.*

Corporations.	Incorporated.	Capital Stock.	Spindles.	Looms.	Fem. empl.	Males empl.	Kind of Goods made.
Merrimack Manufac. Co.	1822	\$2,000,000	41,600	1,300	1,175	600	Prints & Sheetings Nos. 22 to 40.
Hamilton Manufac. Co.	1825	1,200,000	25,956	736	750	270	Prints, Flannels, & Sheet, 14 to 29
Appleton Company	1828	600,000	11,776	400	340	65	Sheetings & Shirtings, No. 14.
Lowell Manufacturing Co.	1828	900,000	8,400 Wool 7,142 Cot.	244 Cotton, 56 Power Carpet, 30 Hand Carpet, 45 Broadcloth, 375 Cassimer.	550	225	Carpets, Rugs & Cotton Cloths.
Middlesex Manufac. Co.	1830	750,000	13,000		800	550	Broadcloth and Cassimer.
Suffolk Manufac. Co.	1830	600,000	13,936	404	400	90	Drillings, 14.
Tremont Mills	1830	600,000	12,960	479	400	100	Sheetings, No. 14.
Lawrence Manufac. Co.	1830	1,500,000	44,082	1,200	1,200	200	Printing Cloths, Sheetings & Shirtings, 14 to 20.
Lowell Bleachery	1832	140,000	....	....	30	220	1,700,000 lbs. bleached per an.
Boott Cotton Mills	1835	1,200,000	34,374	966	970	100	Drillings, No. 14.
Massachusetts Cotton Mills	1839	1,207,600	29,152	919	750	160	Shirtings, No. 40.
Prescott Manufac. Co.	1844	600,000	16,129	548	450	90	Printing Cloth, 10.
Lowell Machine Shop	1845	500,000	....	....	..	600	Sheeting 13.
Total . . . . .	....	11,490,000	533,456	7,766	7,915	3,340	Drillings, 14.
							Sheetings & Shirtings, 12 & 14.
							3,000 tons wro't & cast iron per an.

Average wages of females, clear of board, per week \$2 00

“ “ males, “ “ per day 80

Medium produce of a loom, No. 14 yarn, yards per day 45

“ “ “ “ No. 30 “ “ “ “ 33

Average per spindle, yards per day 14

The Lowell Machine-shop, included among the above mills, can furnish machinery complete for a mill of 6,000 spindles in three months, and a mill can be built in the same time.

An important undertaking, eventually to redound to the interest and wealth of the city, is the building of the *new canal*. It is destined to give to most of the mills on the lower level a more regular supply of water, and consequently benefit those on the upper level. It is to be of an average width of 100 feet, and a depth of 15 feet. It will require in its construction a rock excavation of 150,000 yards, an earth excavation of 110,000 yards, and a mass of masonry of 50,000 yards; the whole estimated at an expense of \$500,000.

In the course of a few months, two new cotton mills will be in operation. The one built by the Merrimack Company to contain 23,424 spindles, and 640 looms. The other, built by the Hamilton Company, will commence with 10,368 spindles, and 260 looms—but is of sufficient capacity to contain nearly 20,000 spindles, and 400 looms. The driving power for the latter will be a steam engine of 160 horse power, which is being put in.

Other manufactures are produced in the city than those specified above, of a value of \$300,000, employing a capital of \$310,750, and about 1,000 hands.

Total manufacturing capital of Lowell, \$11,490,000. Total females employed, 7,915; total males, 3,340. Consumption in factories, about 50,000 tons of coal, 5,000 cords of wood, 100,000 gallons of oil, 1,000,000 pounds of starch, 765 barrels of flour. Population of Lowell, 1828, 3,532; 1846, 28,841.

* For these facts and particulars we are indebted to the History of Lowell by Mr. Miles, the State Record of Mr. Capen, and the admirable sheet published by Joel Taylor, Esq., of Lowell, who issues annually from the press one of these valuable papers.



ART. IV.—NEW FIELDS FOR AMERICAN COMMERCE.

RUSSIAN-AMERICA—SANDWICH ISLANDS—JAPAN.

WE have classed these novel and interesting regions together, not that there is any similarity, but as coming in the order of countries, which it is our intention to embrace in a series of articles, under the general head above. With Great Britain we are now contending for the sceptre of the seas; and it behoves us, like her, to watch the mass of the world, and open relations with the uttermost isle. There is a glorious field before us, and we have nothing to dread from the rivalry of any contemporary nation. The hardy spirit of our enterprise has lost nothing since the days of Burke. But to our subject.

RUSSIAN-AMERICA.

The adventures of the Russians in the northern seas and frozen regions, and ultimate settlements upon the coast of North America, are matters of curious interest, and would afford room for an elaborate and romantic paper, which at some other time we may be induced to give.

In her treaties with the United States and Great Britain, Russia has asserted and maintained a right to the whole division of America, north of $54^{\circ} 40'$ lat. and west of a line drawn from that parallel north, along the highlands, bordering the Pacific ocean to Mount St. Elias, and thence due north to the Arctic ocean.

This territory presents little worthy of note, agriculturally or in any other respect, save for the purposes of hunting and fishing, to which uses it has been principally confined—the climate being cold and inhospitable.

The Russian-American Trading Company have received a charter of the whole region, but they have leased the coasts south-west of 56° to the Hudson Bay Company, at a rent payable in furs. The Company has most of the Indians under jurisdiction, and levies tribute upon them in the shape of skins. It has twenty-six trading establishments south of Bhering's Straits, and its subjects in 1843, were 770 Russians, 1,442 creoles, 11,000 aborigines. There is a governor-general over the whole territories. The furs are shipped to China, Kamschatka, Siberia, and Russia in Europe.

Sitka, or New Archangel, is the capital of Russian-America.

From the late valuable "Travels of Sir George Simpson around the world" we beg leave to introduce a few passages descriptive of Russian-America, and the life which exists in its midst.

SITKA AND THE FUR TRADE.

In addition to Sitka, which is the principal depot of the Russian-American Company, there is a smaller establishment of the same kind at Alaska, which supplies one post in Bristol Bay, and three posts in Cook's Inlet, all the four being connected with subordinate stations in the interior; and there exists another depot in Norton Sound, which has also its own inland dependencies. Beyond the limits of Russian-America, properly so called, the company has either perma-

ment forts or flying parties in the Aleutian and Kurile Islands, over and above a chain of agencies extending from Ochotsk to Petersburg. for the purpose of transporting goods and engaging servants.

The operations of the company were becoming more extensive than they had previously been. Its exclusive license had been extended for a farther term of twenty years; the direction was about to be remodeled; and generally an improved order of things was in progress.

At the date of my visit, the returns of the trade were pretty nearly as follows: 10,000 fur seals, 1,000 sea otters, 12,000 beaver, 2,500 land otters, — foxes, martens, &c., 20,000 sea horse teeth.

Some twenty or thirty years ago, there was a most wasteful destruction of the fur seal, when young and old, male and female, were indiscriminately knocked on the head. This imprudence, as any one might have expected, proved detrimental in two ways. The race was almost extirpated; and the market was glutted to such a degree, at the rate for some time of two hundred thousand skins a year, that the prices did not even pay the expenses of carriage. The Russians, however, have now adopted nearly the same plan which the Hudson Bay Company pursues in recruiting any of its exhausted districts, killing only a limited number of such males as have attained their full growth, a plan peculiarly applicable to the fur seal, inasmuch as its habits render the system of husbanding the stock as easy and certain as that of destroying it.

THE RUSSIAN-AMERICAN COMPANY.

“In the service of the Russian-American Company, the officers are divided into two classes. The captain of the port, the secretaries, three public and two private, two masters in the navy, the commercial agent, two doctors and the Lutheran clergyman form, at present, the first class, and constantly dine by general invitation with the governor; while the civilian masters of vessels, the accountants, the head engineer and about twenty clerks and storekeepers form the second class, and dine together in a club. The salaries of these officers, independently of such pay as they may have according to their rank in the imperial navy, range between 3,000 and 12,000 roubles a year, the rouble being, as nearly as possible, equal to the franc, while they are, moreover, provided with firewood and candles, with a room for each, and with a servant and a kitchen between two. Generally speaking, the officers are extravagant, those of 5,000 roubles and upward spending nearly the whole, and the others getting into debt as a kind of mortgage on their future promotion.

“For the amount of business done the men, as well as the officers, appear to be unnecessarily numerous, amounting this season to nearly 500, who with their families make about 1,200 souls as the population of the establishment. The servants are kept in good order and appear to be quiet and tractable. They work from five in the morning till seven in the evening, with an interval of about an hour for dinner; as breakfast is seldom eaten among Russians, no time is allowed for that meal. Among the servants are some excellent tradesmen, such as engineers, armorers, tinsmiths, cabinet-makers, jewelers, watch-makers, tailors, cobblers, builders, &c., receiving

generally 350 roubles a year; they have come originally on engagements of seven years; but most of them, by drinking or by indulging in other extravagance, contrive to be so regularly in debt, as to become fixtures for life. On going the round of the tradesmen, the workshop of the engineer gratified me most, not merely because Moore was a man of superior ingenuity, but because he had trained five or six creoles and half-breeds to discharge all the mechanical duties of his business nearly as well as himself. As a proof of the efficiency of this department, the whole of the machinery of a tug of seven-horse power was cast and manufactured here, as well as of two pleasure boats of two-horse power each, one belonging to the governor and the other to Moore. The tug is usefully employed in towing vessels to and from the anchorage; and something of the same kind is much wanted in the Columbia to save the valuable time that is now lost, I mean, of course, above the bar, in the difficult navigation of that stream.

"Many of the servants have Russian wives; but most of the females of the establishment are Aleutian and Indian half-breeds. These native women, naturally no beauties, are begrimed with dirt, while many of them, like their lords and masters, are addicted to drunkenness, which, in their case, leads, as a matter of course, to other vices. The majority of the people look sallow and unhealthy, rather, I conceive, through their intemperate habits, than through the effects of the climate. Cases of the prevailing disease of the coast are here frequent, while scurvy is encouraged by the absence of cleanliness, and the dampness of the atmosphere, and not by the nature of the food, which is always fresh and generally nutritious.

"Of all the dirty and wretched places that I have ever seen, Sitka is pre-eminently the most wretched and most dirty. The common houses are nothing but wooden hovels, huddled together, without order or design, in nasty alleys, the hot-beds of such odors as are themselves sufficient, independently of any other cause, to breed all sorts of fevers. In a word, while the inhabitants do all that they can to poison the atmosphere, the place itself appears to have been planned for the express purpose of checking ventilation. But Governor Etholine, whose whole management does him infinite credit, sees the evil, and is introducing many improvements, which, when completed, will materially promote the comfort and welfare of the lower classes."

NEW ARCHANGEL.

"New Archangel, notwithstanding its isolated position, is a very gay place. Much of the time of its inhabitants is devoted to festivity; dinners and balls run a perpetual round, and are managed in a style which, in this part of the world, may be deemed extravagant. Among other gayeties, that took place during my visit, was a wedding between one Pausoff, mate of a vessel, and a rather good-looking creole girl, about twenty years old, and named Archimanditoffra. Attended by their friends, and the principal inhabitants of the establishment, the happy couple proceeded about six in the evening to church, where a tedious service of an hour and a half, was solemnized by the monk. At the close of the ceremony, which comprised

fully the usual proportion of dumb-show, the bridegroom led off his bride to the ball-room. I was going to say that he was followed by his guests; but the expression would have been incorrect, for the guests were not his. The sufferer in these cases, according to the rule made and provided in Russia, is the individual, who has enjoyed the honor of giving away the lady—an honor which, however unpleasant in itself or in its incidents, no man is expected to decline. Archimanditoffra's father, for the occasion, was Lieutenant Bertram, one of the company's principal officers. On entering the ball-room, the bride and bridegroom took their station at the upper end, where Lieutenant Bertram described a variety of mystic signs on their breasts with the bridal cake, which, being thus consecrated, was sent off as fit for use. The newly married pair sat side by side, while every gentleman, in his turn, drank to their health and happiness in a glass of champagne.

“On this occasion were assembled nearly all the beauty and fashion of Sitka, the latter quality, if I may presume to offer an opinion, being perhaps more conspicuous than the former. The ladies were showily attired in clear muslin dresses, white satin shoes, silk stockings, kid gloves, fans, and all other necessary or unnecessary appendages; and these fair ones enjoyed the advantage of being at a high premium, inasmuch as the gentlemen, who amounted to about fifty, outnumbered them in the proportion of nearly two to one. The ball was opened by the bride and the highest officer present; quadrilles and waltzes followed in quick succession; and the business was kept up with great spirit till three o'clock in the morning. The band was of a superior description, some of the clerks and servants being fine performers, who exerted themselves to the utmost. The master and the paymaster of the ceremonies did his duty like a prince. Tea, coffee, chocolate, and champagne were handed about in profusion, varied, at proper intervals, with sandwiches and liquors, while a smoking room, besides being a necessary of life to many, afforded a place of retreat to all such as did not wish to take part in the dancing.

“On these matrimonial occasions, the father of the bride, however hard his lot, gets off much more cheaply than some of the other auxiliaries in the drama. According to a law of the church, the bridesmaids and bridesmen are prohibited from marrying each other; but as, in the limited society of New Archangel, where the lottery consists of so few tickets, youths and maidens would never officiate together on such forbidding terms, the church has indulged Sitka with a special dispensation in this respect.”

We have in a previous number, June 1847, presented an ample sketch of the Sandwich islands, their trade, prospects, resources, government, &c., but the following interesting particulars will be new to many of our readers:

**AGRICULTURAL PRODUCTS OF SANDWICH ISLANDS—SUGAR,
SILK, COTTON, RICE, &c.**

“Among the more important productions of the islands, SUGAR deserves to occupy the first place, if it were only that His Majesty, Kamehameha III., has turned his attention to the manufacture of

the article. The yellow cane, which is indigenous, is alone cultivated. Though its juice is acknowledged to be of excellent quality, yet hitherto the sugar has been of an inferior description through the want of skill and experience. There is little doubt, however, that, in time, art will do justice to nature, when once the business has got into the hands of capitalists. The growers are already numerous, if not wealthy, as the following extract from a letter, which I received from Messrs. Ladd & Co., sufficiently shows: 'The quantity of land under cultivation by natives, and others, in the vicinity of our mill is so great, that latterly we have abandoned its culture and allow our works to be employed in manufacturing sugar for cultivators, returning to them one-half of the products. We regret to say that our works are entirely inadequate to the wants of the planters, and much cane will unavoidably be lost the present and coming season.' But the grand difficulty in the way is the want of a market, more particularly as the group is effectually cut off, both physically and politically, from the rest of the world. Still the difficulty does not amount to a ground of despair. Considering that the article is retailed at five cents, or two pence halfpenny, a pound, about 90,000 natives might surely consume, at least with the help of foreign residents and foreign visitors, something like a ship-load among them in a year, while, with a little management and negotiation, the islands might supply with sugar nearly all the coasts of both continents above their own latitude, California, the Oregon, the Russian settlements both in Asia and America, and ultimately Japan. If the Archipelago could once secure this foreign trade, it could hardly ever be dislodged from it by any rival, so long as it enjoyed the nautical advantages of being the great house of call, both in the length and in the breadth of the Pacific ocean.

"SILK appears to have fewer obstacles to surmount than sugar. The mulberry yields six crops in the year; and females, who can reel half a pound a day, are contented, in addition to their food, with six cents and a quarter, or a fraction more than threepence, paid in goods at an advance of *cent per cent.* on the prime cost. Under these advantageous circumstances, an article of superior quality can be sold for a dollar and a half per pound, so that it can command, freight and duty notwithstanding, a remunerating price either in England or in America. Silk, however, cannot be produced so extensively as sugar, inasmuch as the mulberry thrives only in such places, few and far between, as are completely sheltered from the trade-winds. The principal establishment, which is in Kauai, is under the management of Mr. Titcombe, an American of industry and enterprise. He is expected to succeed in his speculation, though his countrymen, who were the original projectors, failed in it, partly because they had everything that was peculiar to the soil and climate to learn, and partly because some of them had good reason for placing very little confidence in the others. If the business in general should prosper, it might be worth while to import skilful and experienced laborers from China, at least for the purpose of superintending the more delicate processes.

"Tobacco, cotton, coffee, arrow-root, indigo, rice and ginger, thrive luxuriantly throughout the group. Tobacco was, at one time, pro-

hibited ; and, in order to prevent exportation as well as consumption, the 'denounced' weed was torn up by the roots as a public enemy. The absurd system has, I believe, been abrogated ; and, at all events, tobacco grows in the face of day without caring for church or State. *Coffee*, an innocent enough beverage in most countries, also fell under the ban of the earlier missionaries, probably as being a boon companion of tobacco, but more probably because, in furnishing an article of export, it tended to inundate the islands with the accursed thing in the shape of commercial civilization. Whatever was the cause, the coffee shared the same fate as the tobacco, being first destroyed by fanaticism and then replaced by common sense. As I have already mentioned, it is, in my opinion, equal to Mocha ; and, when grown in sufficient abundance, it may, I doubt not, be exported with advantage to almost any part of the world. *Indigo*, though it thrives well, is yet not likely to be extensively cultivated by reason of the breadth of land which it requires—at least so long as other crops, less precarious and more profitable, can advantageously occupy the soil. *Cotton* has only of late become an object of attention to foreign residents ; the article, as prepared by the natives, was, of course, not fit to be sent to market. Of *arrow-root* the same may be said. Intrinsically it is of fine quality ; but so negligent are the manufacturers in washing and drying the article, that a small parcel, lately sent to England by The Hudson Bay Company, did not cover cost and charges. *Ginger* grows spontaneously in lavish abundance throughout the group ; but as yet it has not attracted any notice. *Rice* is but little cultivated, chiefly because the most favorable situations for the purpose, which, on account of the scarcity of water, are not numerous, are already occupied by that grand staff of life, the *kalo*."

MANUFACTURES OF SANDWICH ISLANDS.

"To pass from productions to manufactures, the most showy specimens of native art are the military banners of the chiefs. The *kahile*, as the banner is called, consists of a pole elaborately inlaid with ivory, tortoise shell and human bone, at the upper end of which are fixed plumes of feathers, similar to those that are used at funerals in England, excepting that the colors, instead of being black, are the brightest possible, green, yellow, red, &c. These *kahiles*, as I have elsewhere stated, are more or less splendid according to the rank of the owners. The great banner of the Kamehamehas, which, now that they don't go to war, is displayed only in the funeral processions of the members of the royal family, is thirty or forty feet high, and requires several men to support it. A humbler, but more useful, article of native manufacture, is rope for rigging the double canoes or for any other purpose to which rope can be applied. Some of it is made from the cocoa nut, some of reeds, and some of grass ; but all is strong and well laid. But the principal manufacture of the group is the *kapa* or cloth. It is made of the inner bark of the wouty tree (*morus papyrifera*), which, after being reduced to a pulp, is beaten out to such a degree of thickness as may be desired, while the face of the fabric is susceptible of infinite variety, according as the face of the mallet is smooth, or grooved, checked, or marked

with diamonds or any other figures whatever. In itself the article is of a light color, while, by bleaching, it may be rendered perfectly white. But to the simplicity of nature the aborigines of both sexes generally prefer a gayer hue; and for this purpose they stain the cloth with a number of indigenous dyes, comprising all the possible shades of brown, yellow, green, and red, several colors being frequently contrasted in a kind of Mosaic on one and the same piece or web. Of all the native manufactures perhaps this alone enters into general commerce. It is used for the sheathing of ships, for which purpose it is, in the north Pacific, preferred to felt; it has certainly the recommendation of cheapness, as five or six sheets of twelve feet square may be had for a dollar. In this article the king is the principal dealer, for, in the shape of taxes, his majesty is glutted with cloth, and is glad to part with it at a reasonable rate."

COMMERCE OF THE SANDWICH ISLANDS.

There are views opened here over which every American ought to ponder. Taken in connection with the great purposes of a canal now contemplated between the oceans, or a railroad, they have a most special bearing and application.

"When the ports of Japan are opened, and the two oceans are connected by means of a navigable canal, so as to place the group in the direct route between Europe and the United States on one hand, and the whole of Eastern Asia on the other, then will the trade in question expand in amount and variety, till it has rendered Woahoo the emporium of at least the Pacific ocean, for the products, natural and artificial, of every corner of the globe. Then will Honolulu be one of the marts of the world, one of those exchanges to which Nature herself grants in perpetuity a more than royal charter.

"If these anticipations—and even now they are not dreams—be ever realized, the internal resources of the islands will find the readiest and amplest development in the increase of domestic consumption, and the demands of foreign commerce. In some direction or other every native production will follow its appropriate outlet; and, in a word, the Sandwich islands will become the West Indies of all the less favored climes from California to Japan. As I have already remarked of one or two articles in particular, the greater part of the exports will most probably meet their best market in the Russian settlements. In them, the necessaries, as well as the luxuries, of life are pearls of inestimable value; and, if expedience could justify aggression, the czar might more excusably have seized this Archipelago than ever any one else appropriated a foot of land that did not belong to him. Even now France and America and England might be more willing to let the Sandwich islands fall into the hands of Russia, than to see them continue liable to be seized, on some pretext or other, by any one of themselves.

"In all this mighty work, whether it be wholly or partly accomplished, our own race will furnish the principal actors. The commerce of this ocean will be ruled and conducted by England, aided and RIVALED ONLY BY HER OWN REPUBLICAN OFFSPRING OF AMERICA (let the reader mark this from an Englishman); and the merchants of these two nations, the most enterprising merchants and the most

powerful nations that the world has ever seen, must decide, with a sway greater than that of princes, the destinies of this sea of seas, with its boundless shores and its countless isles. In this respect the past and the present, as they must strike the most superficial observer, are sufficient guaranties for the future.

“But the position of the Sandwich islands, which I have hitherto considered in its bearings on international intercourse, is not less commanding with respect to fisheries than to commerce. In the upper half of the Pacific, there are three principal whaling-grounds, one on the Equator, another near Japan, and the third towards the Russian settlements, while, generally speaking, the same vessels pass, according to the season, from one scene of operations to another. Now this Archipelago, as the hastiest glance at the map must show, could not have been better placed, if it had been exclusively intended by Providence to be a common centre for the whaling-grounds in question; and if, on the intermediate ocean, there be specks superior in mere situation, certainly not one of nature's other caravanseras, within the assigned limits, has been either so conveniently fitted, or so bountifully supplied. In consequence of these unrivaled advantages, the ports of the group—particularly Honolulu, in a far higher proportion than all the other ports put-together—have long been visited by all the whalers of the North Pacific for refuge and refreshments, while they have gradually come to be frequented for ordinary repairs, and, also, for stores and equipments of every description. It is chiefly with reference to the supply of these civilized wants, that foreign merchants and foreign mechanics have established themselves in the group, thus forming such a nucleus of local enterprise as is likely to effect a material change, equally beneficial to all parties, in the system of prosecuting the fisheries. As has already begun to be the case with the adjacent coasts, so has it been with the adjacent waters; in the one instance, as well as in the other, the Sandwich islands, from being the tavern of the traders, promise to become the entrepôt of the trade. Even now, several small whalers are owned in Honolulu; and there can be little doubt, that, from year to year, the port in question, like Sydney in the South Pacific, will engross a larger share of the business, storing the oil to be freighted to its ultimate destination. With such an example before them, the whalers in general will be led to separate the two naturally distinct departments of the work, the fishing and the carrying—a division of labor, which will be profitable in more ways than one. At present, the vessel loses at least ten or twelve months in going and coming; and thus a year's interest on the heavy expense of her special outfit, is almost literally thrown into the sea. At present, the oil, instead of being sent, fresh and fresh, to market, lies, on an average, half the time of the cruise in the hold; and thus are two capitals hazarded to earn the returns of one, while, in order to aggravate the evil, the dead stock is stowed away in the most costly warehouse in the world. At present, the officers and crew are selected with almost exclusive reference to their skill and boldness in pursuing and capturing the whale; and thus, during a period of perhaps three years, of which, at least, a half is not spent in fishing, the owners are obliged to leave their property at the mercy of men, who, to say nothing of the general absence of the

higher qualities of a mariner, have undertaken the management, rather of the ship's boats than of the ship herself. Surely, the remedying of these defects would be worth a month or so of warehouse rent, and the charges of transhipment.

“To conclude this chapter with a brief view of the actual state of trade, there arrived in Honolulu alone, from 1836 to 1839, inclusive, three hundred and sixty-nine vessels. Of these, the whalers amounted to two hundred and fifty-five, all but five being either American or British. As many of the whalers, particularly when they require nothing but such refreshment as the islands themselves yield, call at other ports, perhaps the annual number of this class of arrivals cannot be estimated at less than a hundred. During the same period, the imports of Honolulu—equivalent, I take it, to the imports of the group—averaged, one year with another, nearly 340,000 dollars at prime cost; and, what is to my mind far more worthy of notice than their mere value, they had been brought from the United States, England, Prussia, Chili, Mexico, California, North-west Coast, Tahiti, with other southern islands, China and Manilla. Again, during the same period, the exports averaged, one year with another, about 78,000 dollars, of local value, consisting of sandal wood, hides, goat-skins, salt, tobacco, sugar, molasses, kukui oil, sperm oil, the produce of a vessel fitted out from Woahoo, arrow-root, and sundries. All these articles, as may be seen from the qualified description of the sperm oil, were native productions. But of exports, properly so called, the true amount differed considerably from the foregoing statement. Under the head of sundries was included little or nothing but supplies of meat and vegetables for the shipping; and, as the head in question amounted, as nearly as possible, to a half of the whole, the exports, in the technical meaning of the word, would be not 78,000 dollars, but 39,000 dollars. The exports proper, however, were rapidly increasing. In 1840, down to the middle of August, as compared with the whole of the preceding year, hides, at two dollars each, had risen from 6,000 to 18,500 dollars; goat-skins, at twenty-five cents each, had risen from 1,000 to 10,000 dollars; sugar had risen from 6,000 dollars, at six cents a pound, to 18,000 dollars, at five cents; molasses had risen from 3,000 dollars, at twenty-five cents a gallon, to \$7,300 at twenty-three cents; and arrow-root had risen from nothing, in 1839, the average of the preceding three years having been less than 300 dollars, to 1,700 dollars in the part aforesaid, of 1840. To add one particular more to this statement of arrivals, and imports and exports, there were owned in Honolulu, in 1840, ten vessels by foreign residents, seven by American citizens, and three by British subjects; and besides these more considerable craft, which averaged one hundred and thirty tons, there were five small schooners owned by natives.

“Of the imports a considerable proportion, as I have elsewhere stated, is again exported—a feature, by the by, in the trade, which is a more characteristic omen of the future than any amount of internal demand.”

York, addressed to the Secretary of State at Washington an interesting letter on "Oriental Commerce," and the duty of establishing consular relations with the East. Mr. Palmer has since given notice of his intention to publish a work upon these climes. We introduce a page from him upon Japan :

"In agriculture the Japanese are very diligent and successful. It is compulsory on every tenant to till and improve the land in his occupancy, under penalty of ejection and confiscation. The whole country is, in consequence, highly cultivated; producing rice (esteemed the best in Asia), wheat, rye, buckwheat, barley, beans, and esculents of all sorts, culinary vegetables, a great variety of fruits, and flowers of the most brilliant hues and exquisite fragrance. Sugar is made from the sap of a tree like our maple. The mulberry is reared solely for the silk-worm. The principal article of cultivation, next to rice, is the tea plant; tea being the universal beverage of all classes, as in China. Their gardeners possess the skill of dwarfing and gigantifying trees and shrubs. The rivers, lakes, and seas, abound in a great variety of fish, oysters, and shell fish, which are the principal food of the lower classes. Whales are very abundant in those seas, and many of the natives are employed in the whale fishery.

"The internal trade is very considerable. By land, merchandise is conveyed on pack-horses and oxen, over good roads, by which all the large islands are intersected; but the principal transportation is by water, in coasting vessels from 50 to 200 tons burthen. The prince of Satzuma, island of Kiu-siu, has a number of vessels, some of them 100 to 200 tons, trading between his port of Kagósima and Napakiang, in the Loo-choo islands, the Majicosima group, and to different ports of the empire and its dependencies. At Sinagawa, the outport of Yedo, a thousand vessels are sometimes collected, some bearing taxes from different parts of the empire; others laden with produce, merchandise, or fish.

Their manufactures of silk are celebrated; their finest porcelain is equal to that of China; the coarser inferior, but substantial and durable. Of their fine lackered ware, we are assured no adequate idea can be conceived from the specimens seen in Europe or this country, as the best quality is not allowed to be exported. Their sword-blades are said to be the finest in the world, bearing the fine edge of a razor, and capable of cutting through an iron nail. Their artificers in gold, silver, copper, and steel, have a high character. They manufacture telescopes, barometers, thermometers, watches, and clocks, of curious workmanship,

"The shops and markets of the principal towns are well provided with every description of agricultural produce and manufacturing industry, and are crowded with people from the most distant parts of the empire. Accounts are published from time to time of the general state of trade and agriculture, and prices current for the chief articles of traffic at the trading marts of Yedo, Miako, Ohosaka, and Semoneski, in the island of Nippon; Sangar, Kokura, and Nangasaki, in Kiu-siu; Tosa, in Sikokf; and Matsmai, in Jesso; and a variety of regulations are in force to protect home industry.

"A post for letters is established throughout the empire, which,

though pedestrian, is said to be very expeditious, by relays of letter carriers running at full speed.

"The circulating medium of Japan is gold, silver, and copper, but only the gold and large silver pieces can properly be called coin. They bear the mint stamp, and are of ascertained value; smaller silver pieces and all the copper pass by weight. Paper money is likewise current in some principalities, and bills of exchange are in use among the merchants.

"The southern islands teem with many of the productions of the tropics, while the northern yield those of the temperate zones. The mountains abound in mineral wealth of every description, and the volcanic regions in sulphur.

"Among the products of Japan may be enumerated diamonds and precious stones; gold, silver, copper, and iron, of which it has many productive mines; tin, lead, tutenague, sulphur, coal, saltpetre, salt, camphor, pearls, corals, ambergris, rice, tea, wrought silk, cotton, tobacco, lackered ware, porcelain, and earthenware. Their imports comprise cotton goods, linens, woolens, raw and wrought silk, glass-ware, hardware, quicksilver, antimony, zinc, cinnabar, amber, hides, skins and leather, sandal and sapan wood, dye woods, Malay camphor, ivory, alum, cloves, mace, pepper, sugar, coffee, seal-skins, whale oil, &c. The exports are chiefly of copper, camphor, lackered ware, &c. American cottons carried to that market by the Chinese traders have yielded a good profit, and are in increasing demand in Japan and Corea."

"From their first intercourse with Europeans, commerce had always been regarded with favor by the Japanese, and the princes and governors held out every inducement to the foreign merchants to come to their ports for trade; which, for a lengthened period, was mutually beneficial, and yielded them enormous profits. It was their respect for the superior scientific knowledge of the early Jesuit missionaries, a desire to profit by their instruction, and to attract foreign trade to the empire, which induced the higher classes to favor and protect them; and until Catholicism fell into disfavor, the government seems never to have prohibited any importation except of priests. Kempter states that for several years prior to the expulsion of Europeans from the empire, the annual export of gold amounted, according to the Dutch reckoning, to 300 tons; and of silver 2,350 chests.

"Sir Stamford Raffles, when acting governor of Java, in 1813, sent three commissioners (of whom Dr. Ainslie was one) to Nangasaki, to obtain information respecting Japan. They returned with the impression that the Japanese were entirely free from any prejudices that would stand in the way of an unrestricted intercourse with Europeans. Even their religious prejudices appeared to the commissioners moderate and inoffensive. Commerce with that empire, both in export and import, was, in their opinion, extensible to a long list of articles not yet exchanged, and capable of great increase.

"The articles required and in use in Japan were stated by Dr. Ainslie to be—*Woolens* of every description, they are partial to primary colors (there are no sheep raised in Japan); *hardware*, likely to be very extensive; *glass* (fond of cut-glass of every description),

tions ; printed cottons of fine texture and brightest patterns ; iron-mongery, including tools of every description, iron chests, &c. ; tin plates, lead, stoves, door-locks, and porcelain of handsome patterns ; fire-arms, clocks, watches, and fire-engines ; stationery, leather of light colors, lace, mock jewelry, &c."

Art. V.—THE CIVIL LAW.

THE systems of judicial procedure in the history of Roman jurisprudence are three in number. First, the system of actions of the law (*legis actiones*) ; secondly, the system of procedure by formula (*per formulam*), also called ordinary procedure (*ordinaria judicia*) ; and thirdly, the system of extraordinary procedure (*judicia extraordinaria*). The first continued to the law *Æbutia*, A. U. C. 583 or 597. This period and this system are characteristic of the primitive Romans ; they are marked by the original rudeness of a rough tribe, bear the patrician and sacerdotal impress, and are filled with the symbols and material forms of unformed civilization. The second period continued to the reign of Diocletian, year of Rome 1047, A. D. 294. In this period, the labor of the prætor and of the philosophic juriconsult influenced and modeled the rude materials of the primitive system. The all-embracing spirit of the plebs has expanded the narrow and confined system of the patrician and the priest. "C'est l'administration de la justice qui," says Ortolan, "de la domination patricienne passe dans la science ; c'est le génie juridique de Rome qui se transforme de patricien et de quiritaire qu'il était, il devient plèbèien et humanitaire ; c'est la plèbe qui s'affranchit, c'est l'étranger qui participe à la justice Romaine." (Général., § 86.) The third system, from an exception under the second system (whence its name *extraordinaria judicia*), became the general rule, first in the provinces, under Diocletian, and afterward throughout the Roman empire. This is the system, in the main, which continues in force in nearly all modern Europe. Let us take a general view of these systems.

At first, the right of declaring the law (*jus*), and the authority to decide the matters in controversy (*judicium*), were considered as perfectly distinct, were for the most part kept separate, and confided to different hands. To the magistrate (*magistratus*) was given the power to declare the law ; to the judge (*judex*) was left the examination of the matters in litigation, and the termination of the contest by a sentence. By a figure of speech, to be *in jure*, was to be before the magistrate charged with declaring the law ; to be *in judicio*, was to be before the judge authorized to terminate the controversy. This separation between the *jus* and the *judicium*, between the magistrate and the judge, appears to correspond, in some degree, with the distinction among the moderns between questions of fact and questions of law. Nevertheless, it would be error to suppose that the office of the judge was limited to the decision of mere questions of fact. To him was not only confided the weighing of facts, but also the determining of their judicial effect. His right to decide

the law, however, depended on the nature of the case, and on the extent of the powers conferred by the magistrate. This distinction between the magistrate and the judge existed under the first system, but was not generally adopted in practice. Under the second system the separation became complete, and it was only occasionally and by exception (*par extraordinaire*), that the magistrate himself performs the duties of a judge. Under the third system the extraordinary became the common—the two functions were re-united, and it was only by exception that they are separated.

The law (*jus*), and the declaration of the law (*jurisdictio*), were confided to a magistrate invested with the sovereignty of the State, and having authority in all cases. The judge was selected from a designated class for the particular occasion. The parties were allowed to choose their own judge. If one was proposed to them by the magistrate, they might accept, or refuse, without assigning any cause. If the parties could not agree, the judge was selected by lot. Whether agreed upon by the parties, chosen, or appointed by lot, he was given to the litigants by the rescript of the magistrate. It was a public charge, which no person was at liberty to refuse. A single magistrate and a single judge, as a general rule, sufficed for a single case, with liberty, however, to aid and assist himself by assessors and jurisconsults, whose counsel they might take as a means of enlightening their own judgment. Already created, but almost unknown in its details, under the first system of procedure—organized and developed in an admirable manner under the second—this beautiful theory disappeared under the third.

Under the first system the magistrates were (at Rome), primarily, the kings, then the consuls, then the prætors, and, for certain affairs, the ediles; in the municipes, the decemvirs—consuls on a small scale (*consuls au petit pied*); in the provinces, which began toward the close of this period, the proprætors and the proconsuls. As judges: the *judex*, selected for each case, and who could only be taken from the rank of the senators; the *recuperatores*, for whom the choice is less restricted, who are always many (from three to five) for each case; finally, the *centumviri*, chosen annually by the *comitia* from the tribes. Such are the authorities who act under the system of the action of the law. In certain cases the magistrate performed the functions of the judge; in other cases he sent the parties before a judge proper: but in what cases the trial should take place before the *judex*, when before the *recuperatores*, and when before the college of *centumviri*, is not fully understood.

Having examined the judicial powers, let us now notice the forms of action during this period. The actions of the law, from whence this system took its name, were five in number; three were forms of procedure prior to, and used for the purpose of producing, the decision of the matter in dispute; and two were used for the purpose of carrying the decision into execution. The first three were: First, the *actio sacramenti*, the most ancient of all, which applied, with some variations of form, to the pursuit both of obligations and the rights of property, but the characteristic of which, common to all cases, consisted in the *sacramentum*—a sum of money which each

the part of the loser, to the profit of the public worship (*ad sacra publica*). Second, the *judicis postulatio*, which refers to the demand made of the magistrate for a *judex* to sit on the case, and which appears to have been a general remedy, also, for the pursuit of different rights. Finally, the *condictio*, the most recent of the actions of the law, and exclusively used for the pursuit of obligations. The two last of the actions of the law, used to carry the judgment into effect, were: The *manus injectio*, corporal seizure of the person of the condemned debtor, by means of which the debtor was adjudged (*addictus*)—given in proprietorship to the creditor, by the *prætor*; and the *pignoris capio*, or seizure of the property of the debtor. Action, in the phrase, actions of the law, is a generic term, embracing the whole procedure. The five above enumerated were called actions of the law, says Gaius, either because they were creations of the law as contradistinguished from creations of the *prætor*, or because they were drawn up according to the strict letter of the law (*legum verbis accommodata*), and with rigid adherence to established terms.

This was the period of symbols. Here figured the lance, the clod of turf, the tile, and other material representatives of ideas and objects. This was the age of words clothed by the law with a sacred character—technical terms embracing a large number of particulars, the use of which was essential in juridical acts. He who should use the word vines (*vites*), because his suit related to vines instead of the word trees (*arbores*), a technical term of the law comprehending all the growths of the earth; would lose his case (Gai. 4, §§ 10 and 30). The reader will note the resemblance to the strictures of the primitive common law. This system is impressed by the sacerdotal finger. We see this in the *sacramentum*—the deposit of a sum of money in the hands of the pontiff as the first step in the action; and in the *pignoris capio*, accorded at first for the price of the victim sold for the altar, or for money due for the hire of a beast of burden, when the money was destined to be spent by the creditor in sacrifices. These and other instances, show the large influence of the Etruscan customs in the early constitution of Rome. Here, also, the patrician rule is in all its vigor. The magistrate is patrician; the *judex* can only be taken from the patrician order. The institution of the *centumviri* and of the *recuperatores* appears the first commencement of a change in this respect, destined to produce most important results.

The gradual expansion of these rude elements is strikingly exemplified in the *actio sacramenti*. The forms of this action so far as it related to the recovery (*vindicatio*) of a thing or real right, were detached from this action, and received a fictitious employment, thereby furnishing a way of arriving at results not authorized by the primitive law, or subject to more difficult conditions. This ingenious fiction consisted, when one person wished to transfer to another a real right, in the feigning upon the part of the latter, before the magistrate, a reclamation or *vindicatio* of this right. He brought suit, to use modern phraseology, for that which did not belong to him, as if it were his property; he who wished to transfer it, did not contradict or deny the claim—whereupon, there being no contest as to the facts, the magistrate declared the law, and adjudged the thing or real right

to him who had reclaimed it. The common law student is again reminded of some of the fictions of his own system. From this fictitious employment of the *vindicatio*, may be deduced the transfer of the ownership, or title, of things corporeal and incorporeal; the transfer of tutelage; the manumission of slaves (*manumissio vindicta*); the emancipation of children, and the adoption of sons of families.

The actions of the law, bearing, in the strongest degree, the marks peculiar to the judicial acts of civilization in its infancy, soon experienced a change. Their character, sacerdotal, patrician, symbolic, and dangerously technical (*sacramentellement perilleux*), became more and more inconsistent with the manners and social constitution of the Romans. Above all, they were to the Plebs, the remains of a servitude, against which they had so long contended. We learn from Gaius that they had become unpopular in the sixth century, abandoned, afterward, in actual practice, by a resort to the judicial forms created for the foreigners, they were legislatively suppressed by the law *Æbutia*, and the two Julian laws. Their sole employment, at last, consisted in their fictitious use in the judicial sales, and other similar cases.

Under the second system, the system of formulæ, or ordinary procedure (*judicia ordinaria*), the distinction between the magistrate and the judge became clearly marked. The magistrate is still single for each jurisdiction, the judge for each cause. But the custom of calling in the aid of skilful jurisconsults, by whose means to clear up the difficulties of a cause, received a wonderful impetus during this period, in which the law had become so beautiful a science. Those who acted in the capacity of magistrates were: at Rome, the prætors, gradually added to and increased to the number of eighteen (18) in the time of Pomponius—the ediles, the præfect of the city, and the Prætorian præfect;—in the provinces, divided by Augustus into the provinces of the people or senate and the provinces of the prince, the governors of each province, under the different titles of præconsuls, proprætors, lieutenants of Cæsar (*legati Cæsaris*), presidents (*præsides*), or præfects. These latter, at stated times, held assizes (*conventus*) in the principal towns of their province. Above all these, was the emperor, the supreme magistrate, pronouncing the decision as the court of last resort. The judges consisted of the *judex* or arbiter given for each cause, the *recuperatores*, and the college of *centumvirs*, which retained their functions, although in a declining condition, to the end of the second period. The most remarkable change in relation to the *judex* grew out of the extension of the right of acting in that capacity to all citizens. After having been bitterly contested for half a century, from the time of the Gracchi to the age of Pompey, between the equites and the senators, the *judicium* passed these orders, and extended to the people. Five *decuriæ*, or lists of citizens called to be judges, were made out each year by the prætor in the forum, in the midst of the people, and publicly exposed. The first *decuria* composed of senators, the second of equites, the third of soldiers, the fourth and fifth, the one added by Augustus and the other by Caligula, of citizens paying an inferior tax. These were the *judices* for the year, from these lists were they chosen for each case. "La caste," says Ortolan, quite happily.

“superieure est déçue de son monopole; la Plèbe est affranchie de la justice patricienne: le citoyen, comme nous dirions en langue, est jugé par ces pairs” (Général., § 94).

During this period the consecrated words and acts, the symbols and material objects have disappeared. They are replaced by the science of the law. The magistrate charged with organizing the *judicium*, performs his duty by delivering to the parties, after the judicial proceedings which take place before him (*in jure*), a formula, which is to govern in the future steps to be taken. The parties go before the magistrate, the plaintiff makes his charge (*intentio*), the defendant sets up his defense (*exceptio*), the plaintiff, if need be, replies (*replicatio*), to which there may be a *triplicatio*, &c., in a manner very analogous to the common law mode of special pleading. From these reciprocal allegations and statements the magistrate makes out his formula, as a direction to the *judex*. He states first, by way of inducement, the subject-matter of the controversy, then he settles the points which the plaintiff must sustain by proof, the defense to be established by the defendant, and any other reciprocal matters of charge and reply of the parties litigant, and finally he declares the judgment which is to be given according to the result of the trial—sometimes fixing strictly the judgment to be pronounced, at other times leaving more or less latitude to the judge. The redaction of these formulæ is then the most important part of the procedure under this system. The whole care of the law is directed to this point. The most renowned juriconsults are consulted by the suitors, and by the magistrate. Each right has its appropriate formula. These formulæ are drawn up in advance, incorporated into the law, and exposed to the public. The plaintiff points out before the tribunal of the magistrate the form he requires; the elements are canvassed between the parties, the formula accommodated to the particular case, and finally delivered by the *prætor*.

The demand of the formula was styled, “*postulatio, impetratio formulæ, vel actionis, vel judicii.*” The principal parts of the formula were:

1. The caption. “*Judex esto.*”
2. Demonstratio. The statement by way of inducement, which might be omitted. “*Quod Aulus Agerius Numerio Negidio hominem vendidit.*”
3. Intentio. The specification, or summary of the claim of the plaintiff, which constituted the essential part of the formula: “*Si paret hominem ex jure Quiritium Auli Agerii esse.*” We have seen that the defendant might admit the plaintiff's claim to have once been just, and set up a defense in avoidance; to which the plaintiff might reply, and so on. In such cases the *exceptio, replicatio, &c.*, were noticed in this part of the formula. Thus, suppose the *intentio* to be “*Si paret Negidium Aulo Agerio sestertium x millia dare oportere.*” The *exceptio* would be “*Si in ea re nihil dolo malo Auli Agerii factum sit neque fiat,*” or, “*Si inter Aulum Agerium et Numerium Negidium non convenit ne ea pecunia peteretur.*” And so of the *replicatio, triplicatio, &c.*
4. Condemnatio. The order to the judge to condemn or acquit,

according to the weight of the evidence. "Si paret, condemnato."
 "Si non paret, absolvito."

5. Adjudicatio. The adjudication, confined to three forms of action, by which the magistrate confers upon the judge the power of giving to the successful party the ownership of the object of litigation: "Quantum adjudicari oportet, iudex titlo adjudicato."

The formula, then, it will be noted, was nothing more than the mutual allegations of the parties, reduced to writing, and so arranged as to bring the matters in controversy to a single issue. If, instead of sending the parties with this formula to a iudex, the magistrate had impaneled the iudices, centumviri, or recuperatores, and submitted the matters in controversy to them, and upon their decision passed judgment, the proceedings would have been similar in substance to the proceedings in a trial at common law. The reader will be reminded of the analogy at every step.

When the magistrate, instead of following the formulary procedure and sending the parties before the iudex, thought proper to determine the cause himself, the form of procedure was called, "extra ordinem cognitio, extra ordinem cognoscere; extraordinaria iudicia; actiones extraordinariæ." Even under the formulary system this was the course always adopted in certain cases; in the restitutio in integrum, where a person was completely restored to his original rights; and the missio in possessionem bonorum, where a person was put in possession of goods without the delay of going before a iudex. Under Diocletian, the formulary system began to expire under the more frequent use of the extraordinary procedure. A constitution of that emperor, A. D. 294, established, as the general practice in the provinces, this system, which had previously been only an occasional procedure. Afterward the rule was extended over the whole empire. The system of formulas gave place to the iudicia extraordinaria—the third system.

"Le gouvernement est imperialisé," remarks Prof. Ortolan eloquently. Ce qui fut la constitution de Rome n'existe plus. L'aristocratie des familles patriciennes et la susceptibilité remuante de la Plèbe dorment dans l'histoire. La population primitive a même disparu sous un alluvion incessante de toutes les populations. Depuis Constantin, Rome et le Tibre sont déchus; Constantinople et le Bosphore les remplacent; l'empire n'est plus Romain, il est Asiatique. Il se divise en quatre grandes Préfectures; l'orient, l'Illyrie, l'Italie, les Gaules; chaque Préfecture en Diocèses; chaque Diocèses en Provinces l'Italie est un Préfecture! Le Christianisme est la religion de l'état." (*Généralisation*, § 102.)

The government is imperialized—the pride of the patrician, the restless ambition of the Plebs sleep in history. Italy is a Prefecture! The motley population of a conquered world have taken the place of the stern old Roman. The gorgeous worship of the Etruscan priesthood has been replaced by the religion of the crucified Nazarene. The empire is no longer Latin, it is Asiatic.

This profound revolution is equally traceable in the judiciary system. There is no longer any question about patrician magistrates charged with declaring the law; there are no longer any contests between the senators, and the equites, and the Plebs, for admission

into the list of judices. There are no longer any *decuriæ* prepared in the forum annually, before the people, and publicly exposed to view. The city no longer chooses its magistrate, the citizen his judge. These, also, sleep in history.

The Rector or President of each province; the *vicarius*, *vicegerent*, or other lieutenant delegated by the Prefect; the *Prætorian Prefect* judging upon appeal as representative of the Emperor, and, for final recourse, the Emperor himself; for inferior courts, the local magistrates of each city, with an inferior and limited jurisdiction; Rome, Constantinople, and Alexandria, with their separate systems; the fiscal jurisdiction, confided by the Emperor to special agents; the military jurisdiction, entirely distinct from the civil; and, finally, the ecclesiastical jurisdiction, obligatory upon the clergy, voluntary upon the laity—such is the judiciary organization during the third period. The distinction between the *jus* and the *judicium*, has disappeared; there is no longer any institution of a judge, any reduction of a formula for each case. The person complaining of wrong or injury summons his adversary before the proper court by regular process—the process is served by a ministerial officer, and the judge decides the cause. That which was the exception becomes the rule. Every procedure is extraordinary.

Such was the law during the reign of the emperor Justinian. Scarce a vestige of ancient Rome remained to her degenerate descendants. Even the memory of her early annals was being lost, and the vigorous tongue of Cato and Tully fast waning before the language of the flexible Greek. The Roman law alone remained. Here was gathered the embodied wisdom of thirteen hundred years, and the abstract intellect of an unrivaled list of eminent *jurisconsults*. And, although the practical administration of the law had lost much of the purity which characterized it in the early days of the Republic; although the stern purity of the magistrate, the unswerving integrity of the judices, and the bold freedom of the primitive advocate, had given place to the venality of the imperial *vicegerent* and the cringing servility of eunuchs and courtiers; it is certain that the law itself could at no previous period have laid stronger claims to be considered as the perfection of human reason. The original simplicity had disappeared before the labors of the philosophic jurists—the code of the *Decemvirs* had expanded into the *Pandects*, the rude covering of form had been thrown off, and the Roman law had assumed the flexible garb of principle, applicable to every age and every country.

ART. VI.—DIRECT TRADE OF SOUTHERN STATES WITH EUROPE.

No. IV.

COMPARISON OF NORTHERN AND SOUTHERN MARKETS
FOR FOREIGN GOODS.

We desire to continue this series of papers, original and selected, and request the assistance of all friends. We should be delighted for anything sent us under the head. The paper we now publish was prepared by the Hon. F. H. Elmore of Charleston, a name deservedly high in the country. We suppose the facts embodied will not have changed their relations in the short space which has elapsed since the meeting of the Convention.

THE Committee of ten, to which has been referred the resolution of the Convention, directing them to ascertain and report whether goods have not been imported and sold at the southern sea-ports, upon as good terms, and at as fair rates, as they can be procured at the northern—and whether the country merchants cannot *now* procure at the southern sea-ports as full a supply and as good assortments, upon as fair terms, and as favorable periods of payment, as they can be procured elsewhere—and whether there exist any and what advantages in making purchases from the direct importers at the South, respectfully submit the following report :

The inquiries to be made, in the foregoing resolution, are deeply interesting to all the friends of southern direct trade. If facts will justify affirmative answers to them, the success of the enterprise, if persevered in, is unquestionable, unless defeated by the untoward action of the General Government, or a dispensation of Providence against which human prudence affords no safeguard. The facts necessary to entirely correct conclusions on these inquiries, are many, and exceedingly complicated, requiring for their collection, consideration and arrangement, more time and opportunities than the present occasion affords ; and your Committee being composed of merchants, dealers, and planters, from the interior of the States and territory represented in this Convention, labor under many difficulties, in the investigation in the result of which, the Committee, in common with all they represent, have a deep interest, being nothing less than the discovery of those markets where they can sell their staples for the highest, and buy the goods they consume at the lowest prices. Such time and opportunities as they possessed have been employed to the best of their ability, and they submit the result to the consideration of the Convention.

The Southern States have at all times been the producers of staples of great richness and value in the commerce of the world, which from their earliest settlement as colonies, gave them a direct trade with foreign nations, of an extent and importance greatly beyond their proportionate population. The growth and increase of this trade kept more than even pace with the increase of population, and enriched them with a prosperity before unparalleled. Since the Revolution, and during the period of free trade, it grew and expanded to an immense extent, as has been developed in the report of the Committee of twenty-one already submitted to the Convention. The settlement of new States south-west and west, of similar pursuits,

institutions and staples, have swelled the products of their industry, until they are more than three-fourths of the domestic exports, and constitute to that extent the basis of all the foreign commerce of the United States.

The fiscal action of the General Government in the collections and disbursements of its revenue, has always been unfavorable to Southern commerce, and when the additional burdens of the protective system was thrown upon the industry and trade of the planting States, the disastrous effects were apparent in the deserted cities and ruined prospects which blighted the prosperity and broke the spirits of her people. The direct trade which was her own by every law of commerce and nature, and which should have grown and increased every year, grew less and less until it almost disappeared, being by this unpropitious policy transferred to the Northern ports and people. Discouraged by these burdens, our capital sought more propitious locations for its employment, or engaged in other business—our merchants and capitalists removing to the Northern ports with their funds, or withdrawing from commerce and investing in other employments, while others, discouraged by their example, were not found to supply their places and attempt the business they had been forced to abandon. The importing merchants of the South became an almost extinct race; and her direct trade, once so great, flourishing and rich, dwindled down to insignificance.

It would seem to be undeniable that if the same state of things by which these disastrous blows were dealt with such fatal effect upon our direct trade, continues to exist, the South cannot recover what it lost under their operation. It becomes therefore an important point to be determined whether any and what changes or modifications of these circumstances have taken place, which will enable the South again to enter into a struggle for her own direct trade with foreign nations, with any reasonable hope or fair prospect of success.

That such changes have for several years been in progress is most certain, slowly and gradually, but certainly and beneficially. The compromise act has already produced great amelioration, and every biennial reduction is an impulse to enterprise and trade, which has already caused much capital to return, and again filled the old channel with something like its ancient currents of business. The legislatures of the Planting States have, with prudent forecast, availed themselves of the opportunity, and by wise legislation done much to encourage enterprise, and aid individual efforts in the patriotic effort; and it is hoped will yet do much more for this great and vital measure, by lightening the remaining burthens which oppress commercial capital in the heavy taxation on its employment. Lightened of much of that oppressive taxation imposed by the national legislation, and animated by the prospect of still farther reductions, and a well-founded confidence in the fostering care of the State legislatures, the race of importing merchants has revived, and, as individual and partnership firms, re-appeared in our cities, and have embarked large capitals with great spirit in the business. It gives the Committee great pleasure to add, that they have every reason to believe, that their operations have been conducted with the energy and prudence which de-

erves and has been crowned with a success as advantageous to them as it is beneficial to the country.

If we consider the general principles which naturally regulate trade, we see no reason why foreign goods used in Southern consumption, could not be bought by our own merchants at the place of their production, and brought direct to our markets as cheaply as they can be taken to the Northern markets by their merchants. A careful comparison of all the elements of cost, could they be clearly ascertained, might enable the committee to arrive at exact conclusions, but it is impossible for the committee in the time permitted for the inquiry, to attain such certainty in the multitude of circumstances which must be considered—and even were it possible in any given state of things, and at any fixed day, the constant changes of circumstances, the fluctuations of markets, and the thousand occurrences every hour arising to disturb the regularity of trade, the exchanges and the money market, would perhaps, the very next day, vary that statement and present another condition of things—and so also, if all the foreign goods brought into the country for its consumption, were imported by regular importing merchants, more certainty might be attainable. It happens however, so far from this being the case, that immense amounts of foreign goods are often poured into the United States, upon the great points of importation, under circumstances of commercial pressure and distress, producing great disturbance, and fluctuation of prices. At such periods, the manufacturers, if pressed for money, instead of at once reducing the price of goods at their warehouses (which is considered the last thing to be done), generally prefer to make sacrifices of their surplus stocks at distant points—they sometimes ship to foreign ports and sell by their own agents, on their own account, in which case they can lessen the duties by making out their invoices at lower rates, and also escape the addition which is put on the merchant by our revenue laws for the expenses on the invoice, being about five per cent.; they sometimes make loans from mercantile houses having branches in other countries, and deposit their surplus goods as security, upon the agreement that they are to be sold for whatever they will bring, to refund the advance, if they are not paid when due. Great quantities of these goods and also of failing merchants are thrown upon the Northern markets, especially New York, and sold at auction for whatever they will bring—great sacrifices are inevitable, and at such times, purchases may be made at prices which would prove ruinous to the regular importing merchant, whether northern or southern. Such instances should be considered as departures from regular trade, and as exceptions to its general, regular and steady course; although they occasionally not merely influence, but control business and prices, such transactions are not fair examples for regular business—and whether they are beneficial in the long run to the trade and prosperity of a place may well be doubted, as the tendency is to disturb commerce and destroy the regular importing merchant.

Before proceeding more into detail, it will be proper to remark, that the report will be confined; after a few remarks on domestic goods, to those of foreign fabric and importation. The consumption

of domestic goods has increased greatly and is still increasing. It is generally estimated by the merchant to extend already to 33 per cent. of the whole consumption. That they can be bought upon better terms where they are manufactured, than at the southern ports, is generally conceded, except where the manufactures have agencies at the southern ports, and sell at manufacture prices, including freight, insurance, &c. This, to a limited extent, is done, and may and probably will, in the course of time, be done to an extent commensurate with the demands of consumption. But if the southern merchant still goes to the northern manufacturer and buys and brings the goods back with him for sale, it is not the less a direct trade, and he can buy as cheap, and with the exception of the manufacturer himself, sell as low as any other competitor.

It is manifest that the merchant who buys his goods cheapest, and has fewest burthens and expenses upon his business, ought to be able to sell his goods at the lowest prices. It is fair to presume, that what can be done, has been and will be done by our merchants, in fair competition, for the regular trade with their northern brothers. Let us see what are the elements which enter into the solution of the problem—which enjoys the greatest advantages in this honorable rivalry.

In carrying out this comparison, it will be most satisfactory to select places which may be considered fair exponents of the two sections of the Union, and the committee therefore select New York for the North, and Charleston for the South. In selecting Charleston, the committee are influenced by the fact that being there now, they are enabled to procure more information, authentic and at first hand, as to it, than of any other southern importing city; but it is believed that the same general principles and facts, applicable to its trade, may, with such modifications as will readily suggest themselves in each case, be applied to the other southern importing cities respectively.

In the South, the ports are good and safe, and open all the year to ships. In the North many and considerable obstructions exist during a part of it, from cold and ice. The same may be said of their internal communications, the rivers and canals of the North being frozen, and the railroads obstructed by snows and often for considerable periods of time. In the summer, the southern ports are not so healthy, and their intercourse with the interior markets is less in amount and activity. The establishment of railroads, permitting the most rapid travel and perfect safety through the unhealthy districts adjacent, has greatly diminished the impediments of summer trade, especially with Charleston, and will, very soon, with other southern cities, to which similar improvements are extending. New York enjoys great advantages from the perfect system of communication with foreign parts and her customers at home, her immense capital and custom, her commercial connections with Europe, and most especially in the greater facilities her banks give her merchants for credits in Europe, and by discounts at home for long periods and on their customers' notes. Were the only question, which city can sell its merchandise cheapest *in its own stores*, the answer would probably be that New York can generally sell as low or lower than Charleston. But the true question for the southern country merchant is, can he lay down

his goods at his home cheaper from New York than from Charleston, or any other southern port? If he buys lower in New York, and the expenses of getting them home make them cost more than he could get them at from the southern port, his own interest, as well as patriotism, will influence him to deal at his own ports. In coming to a correct understanding of the cost of the goods at the two markets, we must look into the circumstances which create cost and go to fix the prices of merchandise—all the expenses attending traffic must be charged in the profits and taken out of them, and consequently enhance the cost of its merchandise. These expenses, in some important respects, are believed to be greater in New York than Charleston—and the following views are illustrative of this opinion. The foreign goods imported into this country are paid for chiefly by southern produce or bills of exchange, drawn on it. To buy this, the northern merchant must employ his factor or commission agent, and pay from 1 to 2 per cent. commissions;—the southern importer is on the spot where the produce is, and buys, in person, this produce or bills, saving that commission. In general, exchanges on Europe are lowered by 1 to 2 per cent. at the South—at present it is not so, but the general experience has been that way; and the present difference in favor of the North may be ascribed, in a considerable extent, to the great amount of American loans negotiated through New York, creating a larger fund to draw on, a state of things temporary in character. House rents and store rents are believed to be twice or three times as high in New York as they are in Charleston;—clerks' wages are higher; and the expenses of families and living considerably greater. Another charge, which, it is believed, goes considerably to enhance the price of goods, grows out of the manner in which the mercantile business is done in New York. The importer there, as a general rule, does not deal directly with the country merchant. He imports in bales and packages, which he does not break, but sells in bales and packages, quantities too large for country merchants. The business is divided also into almost as many distinct classes of importers, as there are distinct classes of goods. Assortments in quantities to suit the dealer or country merchant, can only be had from another class of merchants, called jobbers. The jobbers, as they want for immediate retail, buy from the importers by the bale or package, and breaking them, sell to the country dealers in quantities to suit their assortments. They are the regular customers of the importers, and if the importers sell to the country merchants, it is usually for cash, or on such rates and terms as will not interfere with the jobbers, who are their chief dependence, and necessary to their business. These transactions, although they assume many variations in the forms of business, may be illustrated as follows: The jobber buys of the importer and gives his bankable note payable at six or eight months, which can be converted at the banks to meet the importer's engagements—the jobber takes the country merchant's note, payable usually a short time before his note to the importer is due. The importer's profits are seldom as low as 10 per cent. often as high as 25, and may safely be averaged at 17½—the profits of the jobber are estimated at the same, or perhaps a greater per cent., because he has to include the loss which he must

submit to, in converting the paper of the country merchant into available funds, amounting to about 4 per cent. on southern notes, which occurs in this way—if the note is offered for discount at a New York bank, that sum is taken off the face of the note for discount, risk, expense of collection and exchange; or if the southern merchant gives his note payable in New York, the exchange, risk of remittance and agency will cost as much and should be added to the costs of his goods. In Charleston, from 1 to 2 per cent. only is taken off, according to the distance the makers live from the city. In Charleston the country merchant deals directly with the importer, who combines in his business all that is done in New York by both importer and jobber; his profits may be said to average from 20 to 33 per cent., greater than either of them singly, but probably not greater, if as great, as both combined. They have two establishments, and probably each his family to support, he only one. But admitting that generally goods may be purchased lower, notwithstanding, in New York, yet there are other items of calculation to be taken into the account.* The country merchant is supposed to make his own selections in person—it will cost him considerably more, and take longer time both for him to go and return, and for his goods to be brought from New York—the interest which occurs on his money while idle—the risks, insurance and cost of shipping to and landing at Charleston, and commissions on forwarding to him when landed at the several points of stoppage on the way to his home, are no inconsiderable elements of price to enhance the cost of the goods.

In one point of view the committee believe that New York possesses an advantage not adverted to above—in a wise policy which burthens her merchants with less state and corporation taxation than some of the Southern States and cities impose. The committee could not procure exact information as to the particulars—but it is understood generally that the port expenses, wharf fees, landing &c., are considerably less. The taxes fall upon the sales only, are light and paid by the purchaser in fact. At the South, port expenses are greater, the States impose considerable taxes on stock in trade, while some of the cities aspiring to the import trade, strangely discourage it by collecting a tax on every dollar's sale of merchandise made within their corporate limits, a tax both of the State and corporations

* The following statement is made upon information furnished by experienced merchants.

IN NEW YORK.		IN CHARLESTON.	
Cost of goods, duty off, say	\$100 00	Cost, duty off, - - - - -	\$100 00
Duty paid by Importer, - - -	23 50	Add duty paid by importer, - -	23 50
	<hr/>		<hr/>
Profits of Importer, 17½ per cent.	21 61	Profits, including interest for 6 months, and all charges, at 33 per cent.	41 17
Sold to Jobber for - - - - -	145 11		
Profits of Jobber at 20 per cent.	29 02		
	<hr/>	Sold to country merchants for	164 67
Sold to Southern merchant for	174 13	Saved to Southern merchant by purchase in Charleston exclusive of expenses of traveling to the North,	18 16
Freight to Charleston, expenses, insurance, loss on exchange, &c., at 5 per cent. }	8 70		
	<hr/>		<hr/>
The cost of the goods to merchant landed in Charleston, }	182 83		\$182 88

calculated upon returns required on oath, and which are in their nature inquisitorial and repugnant to the merchant's feelings.

For the want of packets and shipping, much of the import trade of Charleston is made by her own merchants through New York; the goods are bought by them in Europe, shipped in New York packets to New York—unloaded there, and reshipped to Charleston; in all such cases, there are increased expenses of commissions, insurance and freight on the voyage, and delay which is still more injurious; the goods therefore cost the importer more than similar goods coming direct to Charleston, but still are cheaper than he could buy them in New York. Another and important consideration is the credit which can be had in the two places. It has been already shown, that, as a general rule, the credits given to the country merchant in New York, will average from six to eight months. In Charleston, during the past season, the credits given by the wholesale merchants have gone from six to twelve months, averaging perhaps nine or ten months. The medium of payments is not less important—payments in New York are by bank notes at a discount, or exchange at a premium. In Charleston the committee are informed, that the bank notes of most of the Southern States are taken at par, constituting a saving of from 1 to 3 per cent.

After weighing all statements and arguments submitted to the committee, they have come decidedly to the opinion that foreign goods may be imported into, and sold at the Southern ports as cheaply and upon as good terms, as at the North; and perhaps it is not going too far to say, upon better—an extensive inquiry among them enables the committee to say, that such is the opinion generally entertained by the best-informed merchants. Acting upon this opinion, during the last season, they have made importations upon a scale greater than has been done in twenty years, and as the committee are informed, at rates that would allow their sale upon terms more favorable than the New York market has afforded. Many instances were laid before the committee, illustrating the operation of the direct and circuitous importations on prices, from which the committee will select a few, coming from sources of the highest respectability, not as conclusive proofs that all the trade has been of a similar character, but as giving some data, by which the truth may be approximated. While it is conceded that the business of a single season, nor perhaps the cases cited are such proofs of the stability of the trade or its general character, as may be considered conclusive, yet when they come in support of the general principles upon which the committee have based their opinions, they cannot fail to have weight.

One of the committee, an experienced merchant, living more than 100 miles in the interior of South Carolina, imported direct the whole of a considerable stock of goods, for the last and present year's sales. He visited New York afterward, and examined the stocks and market carefully—he states, that the same kind of goods were as high or higher, than his would cost him, all expenses included, at his own store. One article especially was greatly more so, to wit, negro blankets—his standing him at his store in \$25 the piece, while for the same quality they demanded \$33 in New York, a price he could have sold for at home, and realized 32 per cent. profit.

A firm in the city of Charleston lately imported a large supply of goods direct, and about the same time had an order filled for similar goods in New York, which, they state to the committee, cost them full fifteen per cent. higher than those imported direct. Among them was a case of cassimers, a match case to one imported, the same in every respect, and costing near 30 per cent. higher than the imported case.

Another firm of this city, largely engaged in the wholesale trade, has a partner residing in New York, by whom about one-third of their stock is purchased there, the balance being imported direct. They inform the committee, that the goods purchased in New York have cost them from 15 to 20 per cent. higher than similar goods imported direct.

In regard to the assortments of goods now in the Southern sea-ports, the committee are uninformed, except as to Charleston—in which city the supply has been greater than any had there for thirty years past, containing excellent assortments of foreign goods. Of domestics—the assortments, though better than heretofore, has not, it is understood, been either as varied or good as at the North. The great market of New York must afford more range of selection at all times, but it may be questioned whether it affords a much greater variety of goods suited to the Southern market, or of better staple. Most of the importing houses, during the past summer, had partners in Europe, who were well acquainted with the wants and tastes of the Southern people, and made their selections to suit—and, notwithstanding the trade of the city has been far greater than was anticipated, they have still managed to keep their stocks at a respectable rate, and are now understood to have very good assortments. A strong proof, not only that the assortments have suited the demand, but that the rates have been better than could be obtained at the North, exists in the increased business; the sales of this season notwithstanding the epidemic of the last summer, are computed at 25 per cent. advance on those of the year preceding. Many intelligent and enterprising dealers from the interior towns, villages and country, who formerly traded to New York, with a full knowledge of all the facts necessary to proper conclusions, have discontinued trading with New York, and made their purchases here—and others, after persisting in going there, and purchasing, have returned here, examined the stocks, and regretted they had lost time and money by going. While greater activity has pervaded this market, a comparative stagnation has fallen upon that part of New York which has heretofore participated largely in our trade. One firm, which has a house both in Charleston and New York, sold on the capital employed the past year full 75 per cent. more goods in the former than in the latter city. These are gratifying evidences that our trade is falling back in its ancient channels, and again returning to fertilize and re-people its ancient home.*

* In one of the best New York commercial papers, the Herald, of the 4th of May, inst., since the adjournment of the Convention, is the following paragraph of its commercial report. The confirmation it gives to this statement is perfect, as it estimates the falling off of Southern trade at 75 per cent. The insinuation that it is for want of credit to the Southern merchants, is undeserved, and will no doubt be duly appreciated by them.

"The Southern trade may now be said to be over for the spring. It has been ex-

The last branch of the resolution directs the committee to inquire if any and what advantages exist in making purchases from the direct importer at the South. Many have been pointed out in the preceding pages of this report—others have been more ably and emphatically explained in the report submitted by the Committee of twenty-one. There are some of these which may be adverted to presently—for the moment, however, others not yet mentioned will be remarked upon.

It is certainly good policy in the retail merchant to concentrate his dealings, if he can, at the same market, provided his supplies can be got there on as good terms. It has already been shown, that in Charleston the assortments are good, the supply ample, the terms fair, and the credits favorable. There are parts of the retailer's supplies which he can get nowhere so well as at the Southern sea-ports—West India groceries for instance. By purchasing the other goods necessary for his business at the same market, he simplifies his business, contracts it to a single point nearer to him, and where he can avail himself of more means to meet his payments—all kinds of country produce may be taken by him from his customers, and made as available at the spot where he owes his debt, as money itself.

Another advantage results from it. His customers will buy more freely when his goods are fresh. That merchant does the best business whose goods best suit the wants and tastes of his customers, he need buy no more at a time than will meet ready sale—for, being near his market, he can in a very short time get more goods of a given kind if needed—he thus makes a smaller capital do a large business, and runs little risk of sustaining losses by goods growing old on his hands and going out of fashion.

The committee of twenty-one have urged with great force a view in relation to this branch of the subject, which cannot be too highly estimated, to wit: the accumulations which result to the capital of the country, by keeping its own trade and the profits on it at home, increasing the means of the importer for enlarging his importations, and extending his credits and accommodations. The official reports from the Treasury give us some data on which to base a calculation, which may not be without its use. In 1834, 1835, 1836, 1837, and 1838, five years, the exports to foreign countries, of domestic produce, from Charleston, was by Custom-house valuation, \$58,000,000, throwing off fractions. To this must be added for what was sent coastwise, perhaps 25 per cent. or 14,500,000, making in all of domestic produce, \$75,500,000, or an average of \$14,500,000, by Custom-house valuation. If the moderate rate of 10 per cent. be added, as their value in foreign or Northern markets where they are sold, it will make an average annual amount of near \$16,000,000, which

ceedingly light, probably not more than one-fourth the amount from the same sections during the spring of 1836. This is particularly true of the hardware business, which trade has, however, received a great accession from other quarters, and the aggregate sales in this line will reach, without doubt, 50 per cent. more than last spring. In consequence of the difficulties with the Southern banks, and the continued high rate of exchange, many orders have not been expected from that quarter; goods are therefore scarce, a fact which leads us to anticipate a large fall trade from all quarters. Southern merchants are beginning to discover that prompt payments are, on the whole, the best policy. The question is now no longer with our merchant, is a man rich? but, is he prompt?"

should have returned to Charleston, in the shape of goods and other supplies for the consumption of the country which furnished the exports. If from this amount two-fifths be taken for articles of domestic growth and manufacture, which we have received in exchange, there will remain upward of \$9,000,000 worth of goods consumed through Charleston, the importer's profits on which will not be less than 25 per cent. or two and a half millions annually. If its commerce were to remain stationary, and not increase for ten years to come, and we take this sum as the measure of profit, and admit that only one half of it or one and a quarter million of dollars, would be annually added to the importing capital, without calculating any profits on this addition, twelve and a half millions would in that period be added to the permanent resources of this most important class of our citizens. If the same principles of calculation are extended to the whole Southern country, the benefits grow immensely upon the mind, prefiguring a career of prosperity which will add vast power and influence to the South, and give new guaranties for the stability of her institutions. The safety of investments and the certain profits in our trade, will offer, when known, inducements to the superabundant capital of other sections and even of Europe itself, to seek a location among us in new mercantile firms, in partnerships or agencies of foreign houses, or loans to our own merchants. If a part only of these anticipations be realized, advances will probably take place in the wealth, developments in the resources, and an invigorating influence be produced on the arts, the industry, enterprise of the country, in all the benefits of which, no class will participate more largely than the country merchants. In the improved condition of their customers, new wants will spring up and a greater demand for goods arise, at the same time that a better market will be created at home, to buy from them whatever of the staples or produce of the country they may have to sell; and larger stocks and wider ranges of goods will be offered for the selection of their assortments, at prices and credits more favorable as capital and competition increases.

Art. VII.—RICE.

In the elaborate paper prepared by Mr. Allston, upon this subject, published by us in April, 1846, almost everything of importance relating to it is embraced. We desire, however, to keep up information upon this subject, and shall direct circulars to rice-planters in Carolina and Georgia for their aid.

Dr. Shepard, of South Carolina, under direction of the Agricultural Society of that State, analyzed, a year or two ago, completely, the rice plant and soils. The analysis is of sufficient importance to have place in our Review. We have, in previous numbers, given the analysis of sugar, corn, cotton, etc., and their lands.

I.—OF CLEAN COMMERCIAL RICE.

Burned in a porcelain capsule under the muffle, until all combustible matter had disappeared, a blabby glass-like ash remained weighing 0.401 per cent. or

less than half a part in one hundred of the rice consumed.* Corrected statement of mineral constituents of clean rice = 0.487 per cent.

Composition of 100 parts of this residuum.

Phosphate of lime (bone-earth), with decided traces of intermixed phosphate of magnesia. P.	76.20
Phosphate of potassa, nearly 5 per cent.	} .. 24.8
Silica, sometimes as high as 20 per cent.	
And the following salts in traces only. They are enumerated in the supposed order of their abundance, viz.:	
Sulphate of potassa	
Chloride of potassium	
Carbonate of lime	
Carbonate of magnesia	

2.—OF THE COTTYLEDON, COMMONLY CALLED THE EYE OR CHIT OF THE GRAIN.

Ignited under a muffle on a porcelain plate, it burns with a bright light, and the ash flows into a glass. From the intimate way in which it adhered to the plate, it was impossible to determine its weight, or even its composition, in a satisfactory manner. The expression 6.824 per cent., however, may be taken as an approximation to the weight of the residuum. In composition, it appears scarcely to differ from the ash of clean rice, except in being somewhat richer in lime, and in the phosphoric and sulphuric acids.

3.—OF THE FINE RICE FLOUR, AS IT COMES DOWN ON THE BULK.

It gives, on burning, a bulky, porous ash, weighing 10.746 per cent. of the flour consumed. Corrected as above = 12.30 per cent.

Composition of 100 parts of this residuum, as follows:

Silica, with traces of combined potassa	38.02
Phosphate of lime, with traces of phosphate of magnesia	54.60
Phosphate of potassa (rich in this salt)	} and loss
Sulphate of potassa	
Sulphate of lime, in traces	
Chloride of calcium, "	
Chloride of potassium, "	
Lime and magnesia, "	7.36
	<hr/>
	100 00

4.—OF COARSE RICE FLOUR, FROM THE BULK.

It gives, on burning, a bulky, porous ash = 11.23 per cent. Corrected statement = 11.831 per cent.

Composition of 100 parts of this residuum, as follows:

Silica, with traces of combined potassa	69.27
Phosphate of lime, with traces of phosphate of magnesia	28.94
Phosphate of potassa (rich in this salt)	} and loss
Carbonate of potassa, in traces	
Sulphate of potassa, "	
Lime and magnesia, "	
Chloride of calcium, "	
Chloride of potassium, "	6.79
	<hr/>
	100.00

5.—OF THE HUSK, COMMONLY CALLED CHAFF, OR OFFAL.

Burns, with little or no flame, into a perfectly white, silicious skeleton of the husk. In weight it equals 13.67 per cent.

* It being requisite to determine the inorganic ingredients of rice, and of the various parts of the entire plant, as it may reasonably be supposed, they are returned to the soil again on the decomposition of the plant and its parts (whether taking place spontaneously or otherwise,) and not to give these ingredients in all cases as they are actually yielded to us in the process of destructive analysis, I shall subjoin many of the constituents of the ashy residue not as found, but rather as the principles of chemistry authorize us to declare them, in accordance with the above requisition.

Composition of 100 parts of this residuum, as follows:

Silica.....		97.51
Phosphate of lime, with traces of alumina and oxides of iron and manganese.....		1.023
Carbonate of lime.....		0.294
Phosphate of potassa.....	} and loss.....	1.138
Sulphate of potassa, in traces		
Chloride of potassium,		
Carbonate of potassa, " }		
		<hr/> 100.000

6.—OF THE RICE STRAW.

Burns into an ash which is a semi-fused, glassy frit. It weighs 12.428 per cent.

Composition of 100 parts, as follows:

Silica.....		84.75
Potassa, with probable traces of soda, combined with the above silica....		8.69
Phosphate of lime, with traces of oxide of iron and manganese.....		2.00
Carbonate of lime.....		2.00
Alumina, in traces....	} and loss.....	2.56
Phosphate of potassa..		
Carbonate of potassa..		
Sulphate of potassa..		
Chloride of potassium }		<hr/> 100.00

7.—RICE SOIL FROM WAVERLY ISLAND.

Silica, with fine sand, one-third of which is feldspathic and slightly magnesian or talcose; and contains alumina, with from 2 to 4 per cent. of potassa, mingled with soda and magnesia.....		47.75
Alumina, partly combined with humic acid.....		12.35
Peroxide of iron (combined with humus), with decided traces of phosphate of lime (bone-earth).....		4.15
Carbonate of lime, with traces of magnesia.....		0.40
Water of absorption.... 8.50 }	}	32.00
Humus (organic matter) 23.50 }		
Chloride of calcium.	} and loss.....	1.35
Sulphate of lime....		
Sulphate of magnesia		
Sulphate of potassa.		
Chloride of sodium.. }		<hr/> 100.00

8.—RICE SOIL FROM MATANZAS ON THE MAIN.

Silica, with fine sand as above.....		60.50
Alumina, partly combined with humic acid.....		8.15
Peroxide of iron, combined with humus, with decided traces of phosphate of lime.....		3.00
Carbonate of lime, with traces of magnesia.....		0.85
Water of absorption.. 9.00 }	}	27.50
Humus..... 18.50 }		
Chlorides of calcium and of sodium }	} and loss.....	1.00
Sulphates nearly as above..... }		
		<hr/> 101.00

Since rice culture is likely to be extensively adopted before very long in the low, river, and bottom lands of Mississippi and Louisiana, we deem the preservation of this matter important. The reader will find great advantage from consulting Col. Allston's paper above referred to, and as containing additional valuable particulars, we introduce some remarks made by Mr. Ruffin, in his late agricultural survey of South Carolina:

GENERAL DESCRIPTION OF THE TIDE SWAMPS IN THEIR NATURAL STATE.

The great body of alluvial swamp lands on the Waccamaw and

Peedee rivers, and subject to their tides, are of similar general character to all other swamps formed by the alluvium of fresh tide waters. In South Carolina, and generally elsewhere, the soil being wholly formed by matter deposited by the rivers and by the remains of plants which died and rotted where they grew, these lands are necessarily composed very largely of vegetable matter, mostly decomposed; and so far as that composition may serve, they were as rich as lands could be, and of an unknown depth of soil. Their earthy parts are mostly of fine clay, such as could remain long suspended in water, and which has been mostly brought by the long course and turbid current of the Peedee. Of course, rivers flowing through calcareous regions, and washing down fertile and well-constituted soils, must have also brought down much calcareous matter intermixed with the clayey, and serving to fix and retain the great and enduring fertility which these lands have exhibited under the long-continued and increasing drafts made by incessant rice culture. Still there cannot be near enough of lime in these soils; and there is a still greater deficiency of the ingredient of silicious sand necessary for a properly constituted soil of the best productive power.

The rise and level of the tides have necessarily fixed the final elevation and grade of surface of all such lands. The earthy matters brought down the river by its floods would continue to be deposited on the marshes, and wherever else the water was most tranquil, until such deposited earth reached to the level of the height of tide water. The lower the surface was at any previous time before this height, the more water, loaded with materials for alluvium, would be over it, and the more it would receive of the tribute. And when, by such additions, the surface had risen to the full height of ordinary high tide, it would no more be covered, except on rare occasions, and of course its increase would almost cease. Thus, there was for ages a constant tendency of the waters to raise all the lower parts the fastest, and to make the lower equal in height to the highest. And when this was done as nearly as might be over any certain extent, the operation ceased there, and was continued lower down toward the sea.

Thus, the alluvial lands formed by the deposits of tide rivers necessarily have surfaces very nearly level. The only general and slight exceptions are seen in the channels of small creeks or "slues" as they are called, which are needed to give discharge to the retreating waters, the rapidity of the motion of which serves to keep such passages open and deeper; and also that the land next the river side is generally higher than that farthest off, and next to the high lands. The cause of the latter effect is also obvious in this, that the water first leaving the more rapid course of the river, and spreading over the swamp, must necessarily deposit most of its suspended earthy matter first, and carries only the lighter portions to the more remote ground. However, the slope thus made is so gradual, that the difference of elevation is very slight between parts of the same swamp. This general evenness of surface is in a remarkable degree favorable to rice culture, which requires overflowing the crop at a depth as nearly equal as possible.

The trees forming the natural growth and dense cover of such

lands are of great size and vigor—principally of tupelo gum, ash and cypress. The undergrowth of cane, and numerous perennial or annual vines and water grasses, serving in summer to make a dense thicket. The earth, always saturated with water, is rendered firm only by its close and deep mat of roots of every description, and but for this, would be a quagmire in its natural state, and the more so in proportion to the excess of decomposed vegetable matter in the marshy soil. Also, according to the large quantity and excess of vegetable matter, will be the subsequent sinking of the land, after draining and cultivation. The excess of vegetable matter in any soil, over and above all that is chemically combined with the soil, is liable to rot and waste away. And such must be the case, sooner or later, on all tide marshes, the drying and cultivation of which produces the commencement of rotting, which the before continual wet state of the earth prevented.

All the tide swamps are not capable of being properly subjected to rice culture. There must be a sufficient "pitch of tide," or ordinary variation between the levels of high and low tides, to enable the lands to be, at any desired time, either quickly flooded, or as quickly to have the overflowing water discharged. The latter object is opposed more and more by the freshets the higher the rivers are ascended, so that the upper tide lands are from this cause too precarious for rice culture. Again, salt or even brackish water is fatal to rice; and therefore the usually fresh water tide-lands near the sea are as much in danger of "salts;" that is, of the water, when needed for flowing the crop, being contaminated by salt, owing to a dry season and a scant supply of river water from above. Thus, omitting the upper tide lands, too much endangered by the river being swollen by rains, and the lower lands, too much endangered by salt tides in dry seasons, there remains on all the rivers but an intermediate body of tide lands fit and safe for rice culture.

THE GENERAL MODE OF EMBANKING, DRAINING AND CLEARING TIDE-SWAMPS FOR RICE CULTURE.*

WHEN a body of new tide swamp on the Waccamaw or Peedee was to be brought under rice culture, the first process has been to cut down and clear off all the trees and under-growth of bushes, cane (or reeds), &c., along the course designed for the outer embankment, for the width of about 50 yards, or such distance as would prevent the subsequent cutting down of the remaining large trees injuring the works. In making this clearing, care is taken to leave untouched a margin next to the river-side; which ought to be, but rarely has been, as wide as from 50 to 80 feet, varying according to the irregularity of the water-line. The trees, &c., cut from the cleared space, are moved inward among the standing trees, or far

* For the substance and for all that may be of any value in the following statement and description of rice culture and management, I am indebted to verbal information, which I derived in conversation with practical and judicious rice planters, and principally from Dr. Edward Heriot and John H. Allston, Esq., in regard to the subject in general, and as to the more usual modes of culture and management of Rice; and to Messrs. Stephen Ford and S. C. Ford in regard to "Leggett's" and the "All-Water" plans of flooding and cultivation, as practised on Black river.

enough to be out of the way both of the outer embankment and the main ditch within and next to it. The site of the outer embankment is then determined precisely; and along the centre of its intended base there is dug a ditch 3 feet deep, 3 feet wide at top, and as much or nearly so at bottom. This digging is for two purposes: first, and principally, to remove all stumps and roots of trees from below the bottom of the future outer embankment, which, if left, would, in subsequent time, by their rotting, cause leaks to be produced; secondly, the earth dug out of this central ditch is laid regularly and closely just outside of its edge, and forms a bank sufficient to exclude the ordinary high tides from covering the land, and troubling materially the main operations which are to follow, for thoroughly embanking and clearing the land. Through this first low bank, at a suitable outlet, there is put in one of the ordinary tide-trunks, such as will serve afterward for one in the finished embankment, and which will serve sufficiently to exclude the high tides, and at low tide to discharge any accumulation of water in the area, from rains, springs, or leakage of the low bank.

When carrying around this first ditch and slight embankment, all the low places which serve as outlets of small creeks or "slues" are omitted at first. When all the other parts are finished, these lower parts are undertaken, for which a different and more laborious procedure is necessary. For the length across each such slue, two parallel lines of strong stakes or piles are driven perpendicularly and deeply into the mud, and the lines wider out from the designed large embankment than its two base lines. "String-pieces," or long horizontal timbers, are placed outside of and against these upright stakes, 2 to 3 feet lower than the designed height of the bank; and these string-pieces kept in place, and made to brace and support the lines of stakes, by upright and much stronger and longer piles driven at intervals of 4 or 5 feet outside of the string-pieces, and opposite to each other across the intended embankment; and, as high as its top is to be raised, cap or cross pieces, made of round cypress poles 6 or 8 inches through, extend from each of these piles to its opposite pile, securing them in place, and the whole structure together, by mortises in the cap-pieces held by tenons on the posts. The embankment is then made within this frame-work, fully as high as the general level of the small bank, if it be not convenient then to complete the full intended size at once at these low places.

The central ditch being completed, with its bank and the trunk fixed (its bottom, as in all cases, being even with lowest tide), the inner and outer lines of the base of the outside embankment are staked off—which is usually not more than 12 feet wide (and sometimes less), for a designed height of 5 feet. It ought to be 15 feet, or thrice as much as the height, at least. Within the inside base line of the embankment, stake off another line parallel to it, and 15 feet distant, if the soil be stiff, or 20 feet if light and porous, which space is for the *inner margin*. This width is for the river-side, or exposed parts of the embankment. If along narrow creeks, or cross-banks, the inner margin need not be more than 10 to 15 feet. Along the inside of this margin is laid off the main ditch, 8 feet wide, and

5 deep, with sides nearly perpendicular.* Out of this ditch all stumps, roots and buried bodies of trees should be entirely removed. But this is not often faithfully done; nor is the ditch always dug 5 feet deep. The earth dug out should be thrown by the ditchers as far as they can toward the site for the embankment. Afterward, when it has stood long enough to be in good condition, or is neither too wet nor too dry, this earth is thrown by women and other inferior hands to first fill the central ditch, and then to build up the embankment; keeping the earth nearly within the limits of the base. After standing long enough to be somewhat consolidated, the sides of the bank are trimmed to their proper slope, making the embankment 5 feet high, generally, 3 feet wide at top, and as before stated 12 feet (or more) at bottom. The rise of ordinary tide is 4 to 5 feet†—spring tides, 12 to 15 inches more. The general level of higher land at first usually above common high tide. If the main parallel ditch does not furnish earth enough to make the bank everywhere, the deficiencies are supplied by digging earth where it can be best spared from the wide outside margin; but care should be taken, if this course can be ever justifiable, at least not to dig anything nearer than 15 feet from the outside base line of the embankment. Unfortunately this care has been in general practice but little regarded. Generally, too little margin was left at first; and nearly all which was left at first has been since cut away to heighten the embankment, so as to leave it exposed to the winds and waves, and requiring enormous annual labor and expense to oppose the destructive action of storms upon the embankment.

In beginning to bring in any one body of marsh, no matter how large, it is sometimes better to carry the first operations, already described, around the whole (except the land side, of course), although the subsequent entire clearing of the forest may require a long time for completion. Of so much of the land as is designed to be cultivated the first year, after the above-described operations, all the cane, bushes, and smallest trees are cut down, then the smaller size only of larger trees, which are lopped, and the bodies cut into lengths of 12 or 15 feet, leaving from 5 to 7 of the largest trees standing in each half acre. At a dry time the next spring, and with a good wind, fire is put to the windward side. The effect is according to circumstances; but it is deemed "a good burn" if all is consumed except the logs. If there is much cane, it serves so well as fuel, that the fire is much more effectual; in other cases, much less. The remaining logs are heaped and burnt when convenient; but by some persons often left scattered on the ground for years. The large trees left standing are afterward killed by belting, or taken out for timber as needed for use.

The land cleared should be divided into fields of convenient shape and size, and each one be separated from the next by cross embankments, and surrounded, except on the sides where joining the high land, by large ditches parallel to the cross embankment. These em-

* This is wrong. A wider ditch, with well-sloped sides, would stand much better, and need less clearing out and subsequent repair.

† The greatest rise of tide low down the river—the least highest up—and in proportion between the extremes.

bankments being only to keep out of one field the water admitted into another, need not be more than 7 or 8 feet wide at base, and 3 feet high—or 2 feet less high than the outer or main embankment. If however they could be as large, it would be better; as then a breach in and overflow of the outer embankment might be kept from overflowing all but the first field. The ditches furnishing earth to make them, need not be more than sufficient for that purpose, or 5 feet wide and 4 to 5 deep. The margin between the bank and the ditches is 10 to 15 feet wide. Each field thus separately embanked and ditched, should discharge and receive its water by a separate trunk connecting with the river or creek. Or if it be a back field not joining such natural outlet, then into a canal confined within two banks, and discharging through a trunk into the river. However, when such a canal is needed (as is usual) for navigation to the barns, &c., as on many plantations, then it is dug 15 feet or more, with margins say 10 feet wide, and in time becomes sometimes 20 to 25 feet, by its sides falling in, and successive clearings. There is no trunk in such case, to exclude the tide; and therefore the two banks on the sides must be high and strong enough for that purpose. Sometimes, however, the navigable canal, instead of being always open to the river, is separated from it at its outlet by a floodgate, wide enough to pass the largest flats used in transporting the crops. This is the better plan, where the canal is long, as it protects the banks on each side of it.

In laying off the land into separately embanked divisions, or fields, regard ought especially to be had to having the surface of each one as nearly equal in level as possible, so that it may be flowed and drained equally. This consideration should have most influence in shaping the fields. As to the proper size, if the level be alike, that depends much on the amount of working force; as no one separately embanked division ought to be larger than the hands can finish any one operation upon in one day. Twenty acres make a very good quantity for the size of trunk used.

The tide trunks used are well planned and constructed for this purpose. The trunk is 4 feet wide by 2 deep. Both ends are cut sloping, so that the bottom of the opening extends 1 inch farther out than the top. The valve or door to close the end, hangs from upright arms rising 10 or 12 feet from the bottom, by long mortises in the arms, or hinges far above the trunk, and closes it by the mere pressure of the water, when higher that side of the bank than on the other. The other end of the trunk has a like valve. But a great improvement in the trunk, which has not been very long introduced here from Savannah, is to have each gate to be raised by sliding upward (as a floodgate does), as well as to swing open by pressure of water from the opposite end. Thus, a valve can be hoisted by sliding up, by use of a lever, when the tide is pressing the valve to the aperture; whereas were it merely to open by its hinges, it could not be done until after the fall of the tide on that side, or higher rise of the water on the opposite side. This simple improvement is of great convenience and utility.

When thus embanked, wide ditched, and as yet but very imperfectly cleared, the land is put the next season under rice culture.

The then still remaining higher level of the surface, and the open, loose, and permeable texture of the soil, filled as it is with roots and other undecomposed vegetable matter, make this slight drainage sufficient at first, and perhaps for some years after. As the surface subsequently becomes lower, and more compact, by decomposition, settling, and tillage, more close and perfect drainage will be needed. And the natural drains furnished by the former beds of crooked creeks and small "leads" are deepened, and side, or "spring" ditches will then be required, and should be cut 3 or 4 feet wide, along the foot of all the high lands, whence springs ooze out. Afterward, when farther drainage is found wanting, straight drains are cut in each field, 20 to 24 inches wide and 3 feet deep, parallel to the longest straight side of each field, and to each other, discharging at each end into main ditches, and either 300 or 150 feet apart, according to the wants of the land. After another or more crops, the intervals left between these narrow drains are split in two by other similar drains; and again, when needed, others made in like manner to subdivide the land, until these parallel drains are at every 75 feet apart, as is usual lower down Waccamaw island, where the freshets have less effect to flood and low tides more effect to drain, or at $37\frac{1}{2}$ feet, as usual higher up the rivers. The working acre is not the same size, of 4,840 square yards; but, as marked and estimated in all culture in lower South Carolina is a space of 300 feet by 150, or 5,000 square yards. And thence, the drainage at 75 yards is technically called "quarter draining," and that at $37\frac{1}{2}$ yards as "half-quarter draining." When the drains are very long, it is usually best to intersect them at right angles, by cross-drains, at distances of 3 and 4 half acres apart. With making all these, the general and usual plan of draining is complete; and thereafter, the planter has but to preserve and keep in perfectly good condition for operation, his embankments, ditches, and floodgates, or tide trunks. And to do this requires continued care, and annual and great labor, which are increased greatly according to the amount of omissions or defects of the early construction of the embankment, or retaining of sufficient outside margin. Regularly every winter or as early as may be in spring, all the drains are cleared out, and such of the main ditches as require it; and the mud from the latter used to partially repair the waste of the adjacent banks. The farther waste and defects of the banks, made necessarily by decomposition of the vegetable portion of the earth itself, or by its being washed away by the waves of the river, or of the "flows" dashed against the banks, are repaired by earth from the most convenient places—and generally (and destructively for the future), by cutting away the outside margin, until none is left, and the whole force of the breaking waves is thus allowed to be spent upon the embankment on the river-side. The consequences of this very general error will be again brought into view.

When a considerable leak has been made through, the bank is cut through at that place down to the leak, and the passage carefully stopped. When an old bank has by neglect become generally leaky, or admitting oozing water, it is "split" or "centre ditched." A narrow ditch is dug lengthwise along its middle, and down below the leaks, and the opened space is then filled up by "slush," or the

soft mud obtained by clearing out the ditches. A better filling material for such a central ditch is used by some persons in the purest sand they can obtain. This prevents the burrowing of snakes, crawfish, and other small animals, which often make leaks.

Art. VIII.—CULTURE OF SUGAR AND COTTON IN THE EAST INDIES.

Our attentive English correspondent, P. L. Simmonds, Esq., F. S. S., has, among other important and valuable papers relating to the British Possessions, put us in possession of sundry parliamentary reports and files of colonial gazettes, particularly of the East and West Indies, which embrace a great variety of information upon Sugar and Cotton. These will be of great service to us hereafter, and will, without doubt, be found to contain much that is valuable, or at least interesting to our planting interests. It is important that we should know precisely the movements which are taking place in every section of the world, bearing upon sugar and cotton, staples of such immense consequence to our whole country. Having published a series of papers upon our own culture, etc., we think no apology can be needed for presenting the valuable papers, however lengthy, from Mr. Simmonds' work upon the culture of the INDIES, our threatened rival.* They were prepared by Geo. W. Johnson, brother of the celebrated agricultural writer of the same name, and are based upon reports, etc., made to the East India Company a year or two ago from every quarter of India, with the utmost particularity and precision.

SUGAR.

THERE are three kinds cultivated in India: 1. The purple; 2. The white; and 3. A variety of the white, requiring a large supply of water. The epitome of the reports affords this information.

1. The *purple-colored cane* yields a sweeter, richer juice, than the yellow or light-colored, but in less quantity, and is harder to press. Grows on dry lands. Scarce any other sort in Beerbhoom, much in Radnagore, some about Santipoore, mixed with light-colored cane. Grows also near Calcutta; in some fields separate, in others mixed with pooree or light-colored cane. When eaten raw, is more dry and pithy in the mouth, but esteemed better sugar than the pooree, and appears to be the superior sort of cane. Persons who have been West India planters do not know it as a West Indian cane.

2. The *light-colored cane*, yellow, inclining to white: deeper yellow when ripe, and on rich ground. West India planters say it is the same sort as that which grows in the West India islands; softer, more juicy than the Cadjoolee, but juice less rich, and produces sugar less strong; requires seven maunds of pooree juice to make as much goor or inspissated juice as is produced from six of the Cadjoolee. Much of this kind is brought to the Calcutta markets, and eaten raw.

3. The *white variety* which grows in swampy lands, is light-colored, and grows to a great height. Its juice is more watery and yields a weaker sugar than the Cadjoolee. However, as much of Bengal consists of low grounds, and as the upland canes are liable to suffer from drought, it may be advisable to encourage the cultivation of it, should the sugar it produces be approved, though in a less degree than other sugars, in order to guard against the effects of dry

* Col. Mag., vols. ii. and v.

seasons. Experience alone can determine how far the idea of encouraging this sort may answer.

Punsaree, Reonda, Mungoo, Newar, Kiwahee.—Different sorts produced in the Benares district; probably some of them may be of the sorts already described. The punsaree and reonda appear to be the most productive and the most esteemed.

Besides the foregoing, several kinds are now known to the Indian planter. One of them, the China sugar-cane, was considered by Dr. Roxburgh to be a distinct species, and distinguished by him as *Saccharum Simensis*. It was introduced here in 1796, by Earl Cornwallis, as being superior to the native kinds. It is characterized by a hardness which effectually resists most of the country rude mills; but this hardness is importantly beneficial, inasmuch as that it effectually resists the attacks of the white ants, hogs, and jackals, which destroy annually a large portion of the common cane.

Dr. Buchanan found that four kinds were known in Mysore. Two of these are probably the purple and white generally known; but as this is not distinctly stated, I have retained the form in which he notices them. *Restali*, the native sugar of the Mysore, can only be planted in the last two weeks of March and first two of April. It completes its growth in twelve months, and does not survive for a second crop. Its cultivation has been superseded by the other.

Puttaputti.—This was introduced from Arcot, during the reign of Hyder Ally. It is the only one from which the natives can extract sugar; it also produces the best *Bella* or *Jagory*. It can be planted at the same season as the other, as well as at the end of July and beginning of August. It is fourteen months in completing its growth; but the stools produce a second crop, like the ratoons of the West Indies, which ripen in twelve months.

Maracabo, Cuttaycabo.—These two are very small, seldom exceeding half an inch in diameter; yet in some districts of Mysore, as about Colar, the last-named is the variety usually cultivated; but this arises from its requiring less water than the larger varieties.

The best varieties are those introduced from the islands of Otaheite and Bourbon. Hindostan is indebted for their introduction to Captain Sleeman, who brought them hither from the Mauritius in 1837. He committed them to Dr. Wallich, under whose care, at the Botanic Garden, they have flourished, and been the source from whence the benefit has been generally diffused. Their superiority over those which have been usually cultivated by the natives has been completely established. The largest of the Hindostan canes, ripe and trimmed, ready for the mill, has never been found to exceed five pounds; but it is not uncommon for an Otaheite cane,* under similar circumstances, to weigh seven pounds. The extra weight arises proportionately from an increased secretion of superior sap. The sugar is more abundant, granulates more readily, and has less scum. Other

* Many are of opinion, founded on their experience, that although the juice of this cane is larger in quantity, yet that it contains less sugar. There is some sense in the reason they assign, which is, that in the Mauritius and elsewhere, it has the full time of twelve or fourteen months allowed for its coming to maturity—whereas the agriculture of India, and especially in Bengal, only allows it eight or nine months, which, though ample to mature the smaller country canes, is not sufficient for the Otaheite.

superior qualities are, that the canes ripen earlier, and are less injured by the occurrence of protracted dry weather.

Of the history of the sugar-cane a popular tradition obtains among the natives, that, in very ancient times, a vessel belonging to their country chanced by accident to leave one of her crew, under a desperate fit of sickness, at a desert island, at a considerable distance in the Eastern seas, and that, returning by the same route, curiosity prompted them to inquire after the fate of their companion, when, to their utter astonishment, the man presented himself to their view, completely recovered from his sickness, and even in a state of more than common health. With anxiety they inquired for the physic he had so successfully applied, and were conducted by him to the sugar-cane, on which he acquainted them he had solely subsisted from the time of their departure. Attracted by such powerful recommendation, every care and attention was bestowed, we may suppose, to convey such an invaluable acquisition to their own lands, where the soil and climate have mutually since contributed to its present prosperity.

The Ryots consider the sugar-cane, and also the betel plant, in a sacred and superior light; they even place it among the number of their deutohs. The first fifteen days of Koar (or September), termed Peetereputch, are devoted by the Hindoos to religious ceremonies and offerings on account of their deceased parents, relations and friends. Such of them as have been bereft of their parents refrain from every indulgence during the said period, as being the season of mourning and mortification; and as they deem the performance of the higher rites of their religion (such as making offerings of sweetmeats, cloths, jewels, &c., in the temples of their several deities, and also the sacrifices denominated Howm-jugg, &c.) a pleasure and enjoyment, these are likewise carefully avoided.

The sacred appellation of the cane among the Ryots is *Nag' bele*, and hence, for the reasons above stated, the immediate owners of the cane plantation sedulously refrain from repairing to or even beholding them during the continuance of the Peetereputch. On the 26th of Cartick (or October), termed by the Ryots *Deuthan*, they proceed to the fields, and having sacrificed to *Nag' bele*, a few canes are afterward cut and distributed to the Brahmins. Until these ceremonies are performed, according to the rules of established usage and custom, no persuasion or inducement can prevail upon any of them to taste the cane, or to make any use whatever of it.

On the 25th of Jeyte (or May), termed the *Desharah*, another usage is strictly adhered to. As it is usual with the Ryots to reserve a certain portion of the canes of the preceding year, to serve as plants for their new cultivation, it very frequently happens that inconsiderable portions of cane remain unexpended after the said cultivation has been brought to a conclusion. Wherever this happens to be the case, the proprietor repairs to the spot, and having sacrificed to *Nag' bele*, as before stated, he immediately sets fire to the whole, and is exceedingly careful to have the operation executed in as complete and efficacious a manner as possible.

The cause of this extraordinary practice proceeds from a superstitious notion of a very singular kind. The act is committed from an apprehension that if the old canes were allowed to remain in the

ground beyond the 25th of Jeyte, they would in all probability produce flowers and seed, for the appearance of these flowers they consider as one of the greatest misfortunes that can befall them.

They unanimously assert, that if the proprietor of a plantation happens to view even a single cane therein which is in flower, the greatest calamities will befall himself, his parents, his children, and his property; in short, that death will sweep away most of the members, or indeed the whole of his family, within a short period of time after his having seen the cane thus in flower. If the proprietor's servant happens to see the flower, and immediately pulls it from the stalk, buries it in the earth, and never reveals the circumstance to his master, in this case they believe that it will not be productive of any evil consequences. But should the matter reach the proprietor's knowledge, the calamities before stated must, according to their ideas, infallibly happen.

"I am informed," said a late resident at Benares, "that there is a species of cane called Kutharee, cultivated in or near the district of Churnparun, and upon the banks of the Gagra, which is not cut down by the cultivators thereof until the canes are in flower. Having mentioned this circumstance to some of the Ryots of Benares, to convince them of the absurdity of ascribing the common misfortunes, incident to human existence and exertion, to the evil influence of a cane-flower, they only replied that the Kutharee cane might perhaps be an exception to what they had stated as the sum of their faith on this head; such faith being, however, invariably corroborated by the result of long observation and experience in this Zemindary.

Soil.—The soil best suiting the sugar-cane is aluminous rather than the contrary, tenacious without being heavy, readily allowing excessive moisture to drain away, yet not light. One gentleman, Mr. Ballard, has endeavored to make this point clear by describing the most favorable soils about Gazeppore as "*light clays*," called there *Mootéarée* or *doansa*, according as there is more or less sand in their composition.

Mr. Piddington seems to think that calcareous matter, and iron in the state of *peroxide*, are essential to be present in a soil for the production of a superior sugar-cane. There can be no doubt that the calcareous matter is necessary, but experience is opposed to his opinion relative to the peroxide.

The soil preferred at Radnagore is there distinguished as the soil of "two qualities," being a mixture of rich clay and sand, and which Mr. Touchet believed to be known in England as a light brick mould. In other districts this soil is described as *Dobrussah*, or two-juiced.

About Rungpore, Dinajpore, and other places where the ground is low, they raise the beds where the cane is to be planted, four or five feet above the level of the land adjacent.

The experience of Dr. Roxburgh agrees with the preceding statements. He says, "The soil that suits the cane best in this climate is a rich vegetable earth, which on exposure to the air readily crumbles down into very fine mould. It is also necessary for it to be of such a level as allows of its being watered from the river by simply draining it up (which almost the whole of the land adjoining to this river

the Godavery, admits of), and yet so high as to be easily drained during heavy rains. Such a soil, and in such a situation, having been well meliorated by various crops of leguminous plants or fallowing for two or three years, is slightly manured, or has had for some time cattle pent upon it. A favorite manure for the cane with the Hindoo farmer is the rotten straw of green and black pesseloo (*Phaseolus Mungo max*)."

Many accordant opinions might be added to the preceding, but it seems only necessary to observe farther, that "the sugar-cane requires a soil sufficiently elevated to be entirely free from inundation, but not so high as to be deprived of moisture, or as to encourage the production of white ants (*termes*)."

The sugar-cane is an exhausting crop, and it is seldom cultivated by the Ryot more frequently than once in three or four years on the same land. During the intermediate period, such plants are grown as are found to improve the soil, of which, says Dr. Tennant, the Indian farmer is a perfect judge. They find the leguminous tribe the best for the purpose. Such long intervals of repose from the cane would not be requisite if a better system of manuring was adopted.

Mr. J. Prinsep has recorded the following analysis of three soils distinguished for producing sugar. They were all a soft, fine-grained alluvium, without pebbles. No. 1 was from a village called Mothe, on the Sarjee, about ten miles north of the Ganges at Buxar, and the others from the south bank of the Ganges, near the same place. There is a substratum of *kunkar* throughout the whole of that part of the country, and to some mixture of this earth with the surface soil, the fertility of the latter is ascribed:

Hygrometric moisture, on drying at 212 deg.....	¹ 2.5	² 2.1	³ 3.6
Carbonaceous and vegetable matter, on calcination....	1.8	2.1	4.0
Carbonate of lime (No. 3 effervesced).....	1.6	0.6	3.9
Alkaline salt, soluble.....	1.0	1.1	0.3
Silex and alumina.....	94.1	94.1	88.2
	100.0	100.0	100.0

The earths unfortunately were not separated. Mr. Prinsep says the first two were chiefly of sand, and the third somewhat argillaceous. The first two required irrigation, but the other was sufficiently retentive of moisture to render it unnecessary.

Manures.—The sugar-cane being one of the most valued crops of the Ryot, he always devotes to it a portion of the fertilizing matters he has at command, though in every instance this is too small.

In the Rajahmundry district, previously to planting, the soil is slightly manured, either by having cattle folded upon it, or by a light covering of the rotten straw of the green and black pesseloo, which is here a favorite fertilizer. In some parts of Mysore the mud from the bottom of tanks is employed, and this practice is more generally adopted in other places. Thus the fields being divided by deep ditches in Dinajpoor, the mud from which is enriched by the remains of decayed aquatic plants and animals, forms an excellent manure for the sugar-cane, and of this the Ryots make use, spreading it over the surface before the plowing is commenced; and when that operation

is completed, the soil is farther fertilized by a dressing of oilcake and ashes.

Crushed bones would unquestionably be of the greatest benefit if applied to the sugar-cane crop. Not only their animal matter would serve as food for the plants, but the phosphate of lime of the bones is one of the chief saline constituents of the sugar-cane.

Salt is another valuable manure for this crop. Dr. Nugent, in a Report made to the Agricultural Society of Antigua, observes that salt has been found a valuable auxiliary in cultivating the sugar-cane. Many trials of it, he says, have been made during successive seasons, applied generally to the extent of about nine or ten bushels per acre. It destroys grubs and other insects, and gives the canes an increased vigor and ability to resist drought. It is a singular remark of the intelligent traveler, M. de Humboldt, while speaking of the practice adopted in the Missions of the Orinoco, when a cocoa-nut plantation is made, of throwing a certain quantity of salt into the hole which receives the nut, that of all the plants cultivated by man there are only the sugar-cane, the plantain, the mammee, and the Avocado pear, which endure equally irrigation with fresh and salt water.

In the West Indies, when the cane is affected by what is called there the *blast*, which is a withering or drying up of the plants, an unfailling remedy is found to be watering them with an infusion of dung in salt water.

Preparation of Soil.—In the Rajahmundry district, during the months of April and May, the ground is frequently plowed, until brought into a very fine tilth. About the end of May, or beginning of June, the rains usually commence, and the canes are then to be planted. If the rains do not set in so early, the land is flooded artificially, and when converted into a soft mud, whether by the rain or by flooding, the canes are planted.

In Mysore the ground is watered for three days, and then, after drying for the same period, plowing commences, this operation being repeated five times during the following eight days. The clods during this time are broken small by an instrument called *col kudali*. The field is then manured and plowed a sixth time. After fifteen days it is plowed again, twice in the course of one or two days. After a lapse of eight days it is plowed a ninth time. Altogether these operations occupy about forty-four days.

For planting, which is done in six days, an implement called *yella kudali* is employed.

In Dinajpoor, "the field, from about the middle of October until about the 10th of January, receives ten or twelve double plowings, and after each is smoothed with the *moyi*. During the last three months of this time it is manured with cow-dung, and mud from ponds and ditches. On this account, the land fit for sugar-cane is generally divided into fields by wide ditches, into which much mud is washed by the rain, and is again thrown on the fields when the country dries, and leaves it enriched by innumerable aquatic vegetables and animals that have died as the water left them. When the plowing has been completed, the field is manured with ashes and oilcake."

About Malda, "the land is first plowed in the month of Cartick, length and breadth ways, and harrowed in like manner; four or five

days after, it is again plowed and harrowed, as before, twice. In the month of Aghun, the whole land is covered with fresh earth, again twice plowed, and harrowed in different directions, and then manured with dung. Fifteen or twenty days afterward it is to be twice plowed, as before; eight or ten days after which, it is to be slightly manured with dung, and the refuse of oil, mixed together; then twice plowed and harrowed in different directions, so that the clods of earth brought be well mixed together with the land. This preparation continues until the 20th or 25th of the month Pows."

In the vicinity of Dacca, during "Cautic or Augun (October, November), the Ryots begin to prepare their ground. They first dig a trench round their fields, and raise a mound of about three feet in height. If the ground to be cultivated be waste, about nine inches of the surface are taken off, and thrown without the inclosure. The ground is plowed to the depth of nine inches more. The clods are broken, and the earth made fine. In Maug or Faugun (January, February), the sugar-cane is planted; a month afterward earth is raised about the plants; after another month this is repeated. The crop is cut in Pooos and Maug (December, January). If the ground be not waste, but cultivated, the surface is not taken off. After cutting the crop, it is not usual again to grow sugar-cane on the same ground for eighteen months, on account of the indifferent produce afforded by a more early planting."

In the Zillah, North Moorabad, the land is broken up at the end of June. After the rains have ceased it is manured, and has eight or ten plowings. This clears it of weeds. In February it is again manured and plowed four or five times, and just before the sets are planted, some dung, four cart-loads to each cutcha beegah of low land, and five cart-loads if high land, are added. The land is well rolled after the last four plowings, and again after the cuttings are set.

About Benares and the neighbouring districts, Mr. Haines says, that owing to the hot winds which prevail "from March until the setting in of the annual rains in June or July, the lands remain fallow till that period. In the mean time, those fields that are selected for sugar-cane are partially manured by throwing upon them all manner of rubbish they can collect, and by herding their buffaloes and cattle upon them at night, though most of the manure from the latter source is again collected and dried for fuel.

"When the annual rains have fairly set in, and the Assarree crops sown (in some instances I have seen an Assarree crop taken from the lands intended for sugar-cane), they commence plowing the cane lands, and continue to do so four or five times monthly (as they consider the greater number of times the fields are turned up at this period of the season, the better the crop of cane will be) till the end of October, continuing to throw on the little manure they can collect.

"Toward the end of October, and in November, their plows are much engaged in sowing their winter (or rubbee) crops of wheat, barley, grain, &c.; and at this period they make arrangements with the shepherds who have large flocks of sheep, to fold them upon the fields at night, for which they pay so much per beegah in grain.

"During the latter part of November, and early in December, the

fields are again plowed well, and all grass, weeds, &c., removed with the hoe; then the surface of the field is made as smooth as possible by putting the hengah (a piece of wood eight to ten feet in length, and five or six inches in breadth, and three or four inches in thickness, drawn by two pairs of bullocks, and the man standing upon the wood to give it weight) over several times for three or four days in succession. This makes the surface of the field very even, and somewhat hard, which prevents the sun and dry west wind from abstracting the moisture, which is of great importance at this period of the season, for, should there be no rain, there would not be sufficient moisture at the time of planting the cane to cause vegetation.

“In this state the lands remain till the time of planting the cane cuttings, which is generally the 1st to the 15th February; but should there have been a fall of rain in the mean time, or excess of moisture appear, the field is again plowed, and the hengah put over as before.

“A day or two previous to planting the cane, the field is plowed and the hengah lightly put over.”

Sets.—When the canes are cut at harvest time, twelve or eighteen inches of their tops are usually taken off, and stored, to be employed for sets. Each top has several joints, from each of which a shoot rises, but seldom more than one or two arrive at a proper growth.

When first cut from the stem, the tops intended for plants are tied in bundles of forty or fifty each, and are carefully kept moist. In a few days they put forth new leaves: they are then cleared of the old leaves, and separately dipped into a mixture of cow-dung, pressed mustard-seed, and water. A dry spot is prepared, and rich loose mould and a small quantity of pressed mustard-seed; the plants are separately placed therein, a small quantity of earth strewed among them, and then covered with leaves and grass, to preserve them from heat. Ten or twelve days afterward they are planted in the fields.

In Burdwan, the tops, before they are planted, are cut into pieces from four to six inches long, so that there are not less than two nor more than four knots in each. Two or three of these plants are put together when planted, and a beegah requires from 7,500 to 10,240 plants.

In Rungpore and Dinajpore, about 9,000 plants are required for a beegah, each being about a foot in length.

In Beerbhoom, 3,000 plants are said to be requisite for a beegah, each plant being about fifteen inches long.

Near Calcutta, from 3,000 to 8,000 plants are required for a beegah, according to the goodness of the soil, the worst soil requiring most plants.

In Mysore an acre contains 2,420 stools, and yields about 11,000 ripe canes.

Near Rajahmundry, about 400 cuttings are planted on a cutcha beegah (one-eighth of an acre). In Zilla North Mooradabad, 4,200 sets, each eight inches long, are inserted upon each cutcha beegah of low land, and 5,250 upon high land.

In the district of Gollagore the Ryots cut a ripe cane into several pieces, preserving two or three joints to each, and put them into a small bed of rich mould and dung and mustard-seed from which the

oil has been expressed. At Radnagore, when the time of cutting the canes arrives, their tops are taken off, and these are placed upright in a bed of mud for thirty or forty days, and covered with leaves or straw. The leaves are then stripped from them, and they are cut into pieces, not having less than two, nor more than four joints each. These sets are kept for ten or fifteen days in a bed prepared for them, from whence they are taken and planted in rows two or three together, eighteen inches or two feet intervening between each stool. The number of sets planted varies from 7,500 to 10,240 per beegah.

Planting.—The time and mode of planting vary. In the Rajahmundry Circar, Dr. Roxburgh says, that “during the months of April and May the land is repeatedly plowed with the common Hindoo plow, which soon brings this loose rich soil (speaking of the Delta of the Godavery) into very excellent order. About the end of May and beginning of June, the rains generally set in, in frequent heavy showers. Now is the time to plant the cane; but should the rains hold back, the prepared field is watered, flooded from the river, and, while perfectly wet, like soft mud, whether from the rain or the river, the cane is planted.

“The method is most simple. Laborers with baskets of the cuttings, of one or two joints each, arrange themselves along one side of the field. They walk side by side, in as straight a line as their eye and judgment enable them, dropping the sets at the distance of about eighteen inches asunder in the rows, and about four feet row from row. Other laborers follow, and with the foot press the set about two inches into the soft, mud-like soil, which, with a sweep or two with the sole of the foot, they most easily and readily cover.”

About Malda, in the month of Maug (January, February), the land is to be twice plowed, and harrowed repeatedly, length and breadth ways; after which it is furrowed, in furrows half a cubit apart, in which the plants are to be set at about four fingers' distance from each other, when the furrows are filled up with the land that lay upon its ridges. The plants being thus set, the land is then harrowed twice in different directions; fifteen or twenty days afterward the cane begins to grow, when the weeds which appear with it must be taken up; ten or twelve days after this the weeds will again appear. They must again be taken up, and the earth at the roots of the canes be removed, when all the plants which have grown will appear.

At Ghazepore the rains set in at the beginning of March, and planting then commences.

Near Calcutta the planting takes place in May and June. In Dinajpoor and Rungpore the planting time is February.

About Commercolly it is performed in January. The field is divided into beds six cubits broad, separated from each other by small trenches fourteen inches wide and eight inches deep. In every second trench are small wells, about two feet deep. The irrigating water flowing along the trenches fills the wells, and is taken thence and applied to the canes by hand.

Each bed has five rows of canes. The sets are planted in holes about six inches in diameter and three deep; two sets, each having three joints, are laid horizontally in every hole covered slightly with earth, and over this is a little dung.

When the canes are planted in the spring, the trenches must be filled with water, and some poured into every hole. At the other season of planting the trenches are full, it being rainy weather; but even then the sets must be watered for the first month.

Mr. Haines says, that in Mirzapore and the neighboring districts, "in planting the cane they commence a furrow round the field, in which they drop the cuttings. The second furrow is left empty; cuttings again in the third; so they continue dropping cuttings in every second furrow till the whole field is completed, finishing in the centre of the field. The field remains in this state till the second or third day, when for two or three days in succession it is made even and hard upon the surface with the hengah, as before stated."

Mr. Vaupell, in describing the most successful mode of cultivating the Mauritius sugar-cane at Bombay, says, that "after the ground is leveled with the small plow, called 'paur,' in the manner of the cultivators, pits of two feet in diameter and two feet in depth should be dug throughout the field at the distance of five feet apart, and filled with manure and soil to about three inches of the surface. Set in these pits your canes, cut in pieces about a foot and a half long, laying them down in a triangular form. Keep as much of the eyes or shoots of the cane uppermost as you can; then cover them with manure and soil. Beds should next be formed to retain water, having four pits in each bed, leaving passages for watering them. The cuttings should be watered every third day during hot weather, and the field should always be kept in a moist state."

About Benares, the sets require, after planting, from four to six waterings, until the rains commence, and as many hoeings to loosen the surface, which becomes caked after every watering. The moister nature of the soil renders these operations generally unnecessary in Bengal.

After-culture.—In Mysore the surface of the earth in the hollows in which the sets are planted is stirred with a stick as soon as the shoots appear, and a little dung is added. Next month the daily water is continued, and then the whole field dug over with the hoe, a cavity being made round each stool, and a little dung added. In the third month water is given every second day; at its close, if the canes are luxuriant, the ground is again dug; but if weakly, the watering is continued during the fourth month before the digging is given. At this time the earth is drawn up about the canes, so as to leave the hollows between the rows at right angles with the trenches. No more water is given to the plants, but the trenches between the beds are kept full for three days. It is then left off for a week, and if rain occurs no farther water is requisite; but if the weather is dry, water is admitted once a week during the next month. The digging is then repeated, and the earth leveled with the hand about the stools.

The stems of each stool are ten to twelve in number, which are reduced to five or six, by the most weakly of them being now removed. The healthy canes are to be tied with one of their own leaves, two or three together, to check their spreading; and this binding is repeated as required by their increased growth.

In the absence of rain, the trenches are filled with water once a fortnight.

When the *Puttaputti* is to be kept for a second crop, the dry leaves cut off in the crop season are burnt upon the field, and this is dug over, the trenches filled with water, and during six weeks the plants watered once in every six or eight days (unless rain falls), and the digging repeated three times, dung being added at each digging. The after-culture is the same as for the first crop.

In the Upper Provinces, Dr. Tennant says, if moderate showers occur after planting, nothing more is done until the shoots from the sets have attained a height of two or three inches. The soil immediately around them is then loosened with a small weeding-iron, something like a chisel; but if the season should prove dry, the field is occasionally watered; the weeding is also continued, and the soil occasionally loosened about the plants.

In August small trenches are cut through the field, with small intervals between them, for the purpose of draining off the water, if the season is too wet. This is very requisite; for if the canes are now supplied with too much moisture, the juices are rendered watery and unprofitable. If the season happens to be dry, the same dikes serve to conduct the irrigating water through the field, and to carry off what does not soak into the earth in a few hours. Stagnant water they consider very injurious to the cane, and that on the drains being well-contrived depends in a great measure the future hopes of profit. Immediately after the field is trenched, the canes are propped. They are now about three feet high, and each set has produced from three to six canes. The lower leaves of each are first carefully wrapt up around it, so as to cover it completely in every part; a small strong bamboo, eight or ten feet long, is then inserted firmly in the middle of each stool, and the canes tied to it. This secures them in an erect position, and facilitates the circulation of the air.

Hoeing cannot be repeated too frequently. This is demonstrated by the practice of the most successful cultivators. In Zilla, N. Mooradabad, in April, about six weeks after planting, the earth on each side of the cane-rows is loosened by a sharp-pointed hoe, shaped somewhat like a bricklayer's trowel. This is repeated six times before the field is laid out in beds and channels for irrigation. There, likewise, if the season is unusually dry, the fields in the low ground are watered in May and June. This supposes there are either nullahs, or ancient pukka wells, otherwise the canes are allowed to take their chance, for the cost of making a well on the uplands is from ten to twenty rupees—an expense too heavy for an individual cultivator, and not many would dig in partnership, for they would fight for the water.

In the vicinity of Benares, as the canes advance in growth, they continue to wrap the leaves as they begin to wither up round the advancing stem, and to tie this to the bamboo higher up. If the weather continue wet, the trenches are carefully kept open; and, on the other hand, if dry weather occurs, water is occasionally supplied. Hoeing is also performed every five or six weeks. Wrapping the leaves around the cane is found to prevent them cracking by the heat of the sun, and hinders their throwing out lateral branches.

In January and February the canes are ready for cutting. The average height of the cane is about nine feet, foliage included, and the naked cane from one inch to one inch and a quarter in diameter.

Near Maduna, the hand-watering is facilitated by cutting a small trench down the centre of each bed. The beds are there a cubit wide, but only four rows of canes are planted in each.

It is deserving of notice, that the eastern and north-eastern parts of Bengal are more subject to rain at every season of the year, but especially in the hot months, than the western ; which accounts for the lands being prepared and the plants set so much earlier in Rungpore than in Beerbhoom. This latter country has also a drier soil generally ; for this reason, so much is said in the report from thence of the necessity of watering.

The Benares country is also drier than Bengal, therefore more waterings are requisite.

At Malda, "ten or fifteen days after the earth has been removed from the roots of the canes and the plants have appeared, the land is to be slightly manured, well cleared of weeds, and the earth that was removed again laid about the canes ; after which, ten or fifteen days, it must be well weeded, and again twenty or twenty-five days afterward. This mode of cultivation it is necessary to follow until the month of Joystec. The land must be plowed and manured between the rows of canes in the month of Assaar ; after which, fifteen or twenty days, the canes are to be tied two or three together with the leaves, the earth about them well cleaned, and the earth that was plowed up laid about the roots of the canes something raised. In the month of Saubun, twenty or twenty-five days from the preceding operation, the canes must be again tied as before, and again ten or fifteen days afterward ; which done, nine or ten clumps are then to be tied together. This care to be taken until the end of the month Saubun ; after which, in the month of Bhaddur, they must be tied with the cane-leaves as before, and again in Assen, when the cultivation is completed."

In the Rajahmundry Circar, on the Delta of the Godavery, Dr. Roxburgh states, "that nothing more is done after the cane is planted, if the weather be moderately showery, till the young shoots are some two or three inches high ; the earth is then loosened for a few inches round them with a small weeding iron, something like a carpenter's chisel. Should the season prove dry, the field is occasionally watered from the river, continuing to weed and keep the ground loose around the stools. In August, two or three months from the time of planting, small trenches are cut through the field at short distances, and so contrived as to serve to drain off the water, should the season prove too wet for the canes, which is often the case, and would render their juices weak and unprofitable. The farmer, therefore, never fails to have his field plentifully and judiciously intersected with drains while the cane is small, and before the usual time for the violent rains. Should the season prove too dry, these trenches serve to conduct the water from the river the more readily through the field, and also to drain off what does not soak into the earth in the course of a few hours ; for they say if water is permitted to remain in the field for a greater length of time, the

cane would suffer by it, so that they reckon these drains indispensably necessary, and upon their being well contrived depends in a great measure their future hopes of profit. Immediately after the field is trenched, the canes are all propped; this is an operation I do not remember to have seen mentioned by any writer on this subject, and is probably peculiar to these parts. It is done as follows:

“The canes are now about three feet high, and generally from three to six from each set that has taken root from what we may call the stool. The lower leaves of each cane are first carefully wrapt up around it, so as to cover it completely in every part; a small strong bamboo (or two), eight or ten feet long, is then stuck into the earth in the middle of each stool, and the canes thereof tied to it. This secures them in an erect position, and gives the air free access round every part. As the canes advance in size, they continue wrapping them round with the lower leaves as they begin to wither, and to tie them to the prop bamboos higher up; during which time, if the weather is wet, they keep the drains open, and if a drought prevails they water them occasionally from the river, cleaning and loosening the ground every five or six weeks. Tying the leaves so carefully round every part of the canes, they say, prevents them from cracking or splitting by the heat of the sun, helps to render the juice richer, and prevents their branching out round the sides. It is certain you never see a branchy cane here.”

In Dinajpoor, in about a month after planting, “the young plants are two or three inches high; the earth is then raised from the cuttings by means of a spade, and the dry leaves by which they are surrounded are removed. For a day or two they remain exposed to the air, and are then manured with ashes and oilcake, and covered with earth. Weeds must be removed as they spring; and when the plants are about a cubit and a half high, the field must be plowed. When they have grown a cubit higher, which is between the 13th of June and the 14th of July, they are tied together in bundles of three or four, by wrapping them round with their own leaves. This is done partly to prevent them from being laid down by the wind, and partly to prevent them from being eaten by jackals. During the next month three or four of these bunches are tied together; and about the end of September, when the canes grow rank, they are supported by bamboo stakes driven in the ground. They are cut between the middle of December and the end of March.”

If the canes grow too vigorously, developing a superabundance of leaves, it is a good practice to remove those which are decayed, that the stems may be exposed fully to the sun. In the West Indies, this is called *trashing* the canes. It requires discretion; for in dry soils or seasons, or if the leaves are removed before sufficiently dead, more injury than benefit will be occasioned.

Harvesting.—The season in which the canes become ripe in various districts has already been noticed when considering their cultivation. In addition I may state, that in the Rajahmundry Circar, about the mouth of the Godavery, Dr. Roxburgh states, “that in January and February the canes begin to be ready to cut, which is about nine months from the time of planting. This operation is the same as in other sugar countries—of course I need not describe it. Their

height, when standing on the field, will be from eight to ten feet (foliage included), and the naked cane from an inch to an inch and a quarter in diameter."

In Malda, the canes are cut in January and February. In N. Mooradabad, upon the low land, the canes are ripe in October, and upon the high lands a month later. The fitness of the cane for cutting may be ascertained by making an incision across the cane, and observing the internal grain. If it is soft and moist, like a turnip, it is not yet ripe; but if the face of the cut is dry, and white particles appear, it is fit for harvesting.

Injuries.—1. *A wet season*, either during the very early or in the concluding period of the cane's vegetation, is one of the worst causes of injury. In such a season, the absence of the usual intensity of light and heat causes the sap to be very materially deficient in saccharine matter. But on the other hand,

2. *A very dry season*, immediately after the sets are planted, though the want of rain may in some degree be supplied by artificial means, yet the produce under such circumstances proves but indifferent. These inconveniences are of a general nature, and irremediable.

3. *Animals.*—Not only the incursions of domesticated animals, but in some districts of the wild elephant, buffalo, and hog, are frequent sources of injury. Almost every plantation is liable, also, to the attack of the jackal.

4. *White Ants.*—The sets of the sugar-cane have to be carefully watched, to preserve them from the white ant (*Termites fatale*), to attacks from which they are liable until they have begun to shoot. To prevent this injury, the following mixture has been recommended :

Asafetida (hing), 8 chittacks.
Mustard-seed cake (sarsum ki khalli), 8 seers.
Putrid fish, 4 seers.
Bruised butch root, 2 seers; or muddur, 2 seers.

Mix the above together in a large vessel, with water sufficient to make them into the thickness of curds; then steep each slip of cane in it for half an hour before planting; and, lastly, water the lines three times previous to setting the cane, by irrigating the water-course with water mixed up with bruised butch root, or mudder if the former be not procurable.*

A very effectual mode of destroying the white ant is, by mixing a small quantity of arsenic with a few ounces of burned bread, pulverized flour or oatmeal, moistened with molasses, and placing pieces of the dough thus made, each about the size of a turkey's egg, on a flat board, and covered over with a wooden bowl, in several parts of the plantation. The ants soon take possession of these, and the poison has a continuous effect, for the ants which die are eaten by those which succeed them. They are said to be driven from a soil

* That the above application would be beneficial, is rendered still more worthy of credit from the following experience:—In the Dhoon, the white ant is a most formidable enemy to the sugar planter, owing to the destruction it causes to the sets when first planted. Mr. G. H. Smith says, that there is a wood very common there, called by the natives *Dutch*, through which, they say, if the irrigating waters are passed in its progress to the beds, the white ants are driven away.

by frequently hoeing it. They are found to prevail most upon newly-broken-up lands.

In Central India, the penetration of the white ants into the interior of the sets, and the consequent destruction of the latter, is prevented by dipping each end into buttermilk, asafœtida, and powdered mustard-seed, mixed into a thick compound.

5. *Storms*.—Unless they are very violent, Dr. Roxburgh observes, “they do no great harm, because the canes are propped. However, if they are once laid down, which sometimes happens, they become branchy and thin, yielding a poor, watery juice.”

6. *The Worm* “is another evil, which generally visits them every few years. A beetle deposits its eggs in the young canes; the caterpillars of these remain in the cane, living on its medullary parts till they are ready to be metamorphosed into the chrysalis state. Sometimes this evil is so great as to injure a sixth or an eighth part of the field; but, what is worse, the disease is commonly general when it happens—few fields escaping.”

7. *The Flowering* “is the last accident they reckon upon, although it scarce deserves the name, for it rarely happens, and never but to a very small proportion of some few fields. Those canes that flower have very little juice left, and it is by no means so sweet as that of the rest.”

COTTON.

The cotton plants belong to the Monadelphia Dodecandria class and order of Linnæus, and are distinguished in botany by the generic name of *Gossypium*. They may be divided into three groups—1st. The herbaceous; 2d. The shrubby; and 3d. The arboraceous.

1. The herbaceous, is a single species of *Gossypium herbaceum* of Willdenow and Roxburgh, although there are many varieties marked by only slight differences in the eye of the botanist, but of considerable importance in a commercial point of view.

This species is biennial; it is very generally cultivated in India, as well as in North America, China, and elsewhere. Its height varies between six and two feet; leaves palmate, five-lobed, hoary, dark green, and brown-veined; lobes sub-lanceolate; flowers pale yellow, five-petaled; seed-pod or capsule irregularly triangular, ovate, pointed, and three-celled: not longer than a filbert, brown when ripe, and bursting, exposes a globe of cotton, white or yellowish, in three locks, enveloping and adhering strongly to the seeds, which resemble those of the grape in form, but are much larger; stipules falcate-lanceolate; leaves of outer calyx dentate. This must not be confounded with the *Gossypium herbaceum* of Pluck. In Hindostan it is known by various names; it is karpassee in Sanscrit; rewée in Hindostanee; kassap in Bengalee; pati-chitoo in Telinga; upum punthee and upum pirati in Canara; kootu in Arabic; paratti in Malabar; banga in Central India.

Dr. Roxburgh thought that the cotton from which the Dacca muslins are made was produced from a variety of this species, but later information and research certainly raises a legitimate doubt upon the point. At all events this species is in general cultivation by the natives of Hindostan, and the distinguished botanist just named con-

cluded that there are three principal varieties—the Dacca, the Berar, and the China.

The Dacca variety differs from the common *Gossypium herbaceum* in the following respects :

1st. In the plant being more erect, with fewer branches, and the lobes of the leaves more pointed.

2d. In the whole plant being tinged of a reddish color, even the petioles, and nerves of the leaves, and being less pubescent.

3d. In having the peduncles which support the flowers longer, and the exterior margins of the petals tinged with red.

4th. In the staple of the cotton being longer, much finer, and softer.

These are the most obvious points of difference, but whether they will prove permanent I cannot at present say. The most intelligent people of that country (Dacca) think the great difference lies in the spinning, and allow little for the influence of soil.

Berar cotton I call the second variety ; it is in cultivation over the Berar country, and is from thence imported into the Circars, or northern provinces, by Sada, Balawansa, &c., to Yourma-goodum, in the Musulipatam district. With this cotton the fine Madras, more properly northern Circars, "long-cloth" is made. It differs from the two before-mentioned sorts in the following respects—1st. In growing to a greater size, in being more permanent, or living longer, and in having smooth and straight branches ; 2d. In having the leaflets of the exterior calyx more deeply divided, and the wool of a finer quality than in the first variety.

China cotton is cultivated in the country whence it derives its name, and its wool is reckoned 25 per cent. better than that of Surat. It differs from the former sorts—1st. In being much smaller, with but very few short weak branches ; 2d. In being, so far as my experience goes, annual ; 3d. In having the leaflets of the exterior calyx entire, or nearly so.

In South Behar there are four varieties of this species cultivated : 1st. *Rehdhea*, the finest is sown about the autumn equinox, and of this the Dacca muslins are said to have been made in years gone by, but now none is exported thither ; 2d. *Hewlee*, the next best, is sown in June ; 3d. *Jeitowa*, is sown at the same period ; 4th. *Kokety*, is yellowish ; it makes the best fine thread, and is cultivated chiefly to the north of Tirhoot.

The Guzerat cotton is the produce of this species. The plants are described as differing from the Bourbon perennial species by never exceeding two or three feet in height, by producing few branches and a smaller number of pods, and by yielding its produce in six months from the time of sowing.

2. The shrubby cottons are—

G. vitifolium, of Willdenow and Roxburgh, vine-leaved cotton, said by some authorities to be a native of Celebes, South America, and the Isle of France ; but Dr. Roxburgh considers its place of nativity uncertain. In flower and seed the whole year, but not profitable, because the produce is scanty. Dr. Royle identifies it with *G. Barbadosense*, and thinks that the *Sea island cotton* is produced from a variety of this species.

G. hirsutum (Willdenow and Roxburgh), hairy-branched cotton, found in the hottest districts of South America.

G. religiosum, nankeen cotton (Willdenow and Roxburgh), found in Surinam, Hindostan, and elsewhere. Flower, uniformly yellow; allied to *G. hirsutum*, if not merely a variety. Wool, tawny. This is occasionally grown in Burmah, and is called *wa-nee*.

G. latifolium, broad-leaved cotton, a native of the West Indies, and differing but little from *G. vitifolium*.

G. Barbadosense (Willdenow and Roxburgh) is the kind cultivated chiefly in Barbadoes. It is known here as the Bourbon cotton (Roxburgh), and is productive for several years.*

There are two sorts cultivated in the Isle of Bourbon:—1st. *Black-seeded*, which is easily separated from the cotton. 2d. *White-seeded*, a whiteness which seems to arise from the ends of the fibres of the cotton remaining adhering to, and requiring to be torn from them with considerable force.

G. Peruvianum, a native of Peru.

G. acuminatum (Roxburgh) is easily distinguished by its superior size, and large black seeds adhering firmly to each other, but easily separating from the wool; said to be a native of the mountains to the north and west of Bengal. Dr. Wallich describes a specimen brought from the Nusseerabad, where it seems to be common. He says that it is very productive, and that the cotton is readily and completely separable, milk-white, long staple; and although that grown in the Botanic Garden was harsh and woolly, yet the variety seems improvable by culture, because the specimen from Nusseerabad was soft and silky.

It appears to me that this variety is specifically the same as the *Brazil* or *kidney cotton-tree* recommended to notice by Mr. Rundell in 1819. He describes it as growing to the height of ten or twelve feet; it produces at least six hundred large pods, each containing from six to ten conglomerated seeds, enveloped in very fine and valuable wool. It thrives well on the margin of water; lasts about seven years; requires pruning occasionally of its dead branches, &c.; and, during very hot weather, should be watered at least twice a week. An acre will contain about five hundred trees. Two hundred and thirty pods usually weigh one pound, and yield from four to five ounces of clean cotton.

If this be the *Pernambuco cotton-tree* (and that town is, we know, in Brazil), it has an additional claim to attention for cultivation in the interior districts of Hindostan, inasmuch as it is found to improve in quality the farther it recedes from the sea.

Plants of this species differ from the herbaceous not only in stature, but in the form and size of their pods, which are oval and larger. In addition to these distinctions they are longer-lived, for, although in the most temperate climates, capable of growing cotton, they frequently become annuals, yet in the most torrid localities they are perennial; while in the West Indies they are either biennial or triennial; and in Egypt, &c., live for six or even ten years.

* Mr. Hughes, who has cultivated successfully the Bourbon cotton near Timivelly, says the plant will last a great number of years without falling off in productiveness, if properly managed.

The Persian cotton-shrub on the sea-coast lives for twenty or thirty years, but in the interior it is cultivated as an annual.

The influence of climate and soil upon the plant is evinced in another phenomenon, for Mr. Tucker shows that the color of the seed varies with the soil and situation where the plant is grown. The Sea island cotton has black seeds, but if taken to the back or upland districts the seeds become green, and the staple of the cotton undergoes a great change.

G. obtusifolium (Roxburgh), a native of Ceylon, producing a small quantity of ash-colored wool; not cultivated.

G. micranthium (Cavanilles).—This was raised in the Paris Garden from seed produced in Persia.

3. The Arboraceous cotton-plant, *Gossypium arboreum* (Willdenow and Roxburgh), grows to a height varying between twelve and twenty feet. It is indigenous to Hindostan, China, Egypt, and some parts of America and Africa. Dr. Roxburgh says it is not cultivated for its wool, but Dr. Royle states that some produced by this species at Sahnapore was pronounced by a competent judge to be of the best description, as both fabric and staple were good. It appears worthy, he adds, of being the subject of farther trials, particularly to ascertain its productiveness; for of the fineness and silky nature of its staple there can be no doubt, as it is employed by the natives for making the finest muslins only. It was cultivated like the common Indian cotton, and gave its produce, in the first year, during October and November, and a second crop in February.

To ascertain which of the species are best suited to the various soils and climates, is a most important consideration for those interested in the introduction of this source of wealth into India, because, however judicious the culture, yet, if it be expended upon a species physically unsuited to the climate, it is labor and time uselessly bestowed. My own inquiries lead me to the conclusion that the *Gossypium acuminatum* is in every respect worthy of more attention than it has yet received. It has the advantage of being indigenous, and, therefore, not liable to the changes and difficulties unavoidably incident to acclimating exotics. It most delights in inland localities, and is consequently capable of more extensive cultivation than those species which affect maritime situations, and being a perennial, its culture is attended with very much less expense. To these highly important qualities are to be added those of being far more productive than the sorts usually cultivated, and of producing, in the most suitable soils and climate of India, a cotton, long, fine, and silky. I have my suspicions that it will be identified with the perennial species noticed lately at Dacca.

The result of the experiments on the Agricultural Society's farm at Akra warranted the committee of management in reporting very strongly in favor of cultivating in India the Upland Georgia variety. This opinion is sustained by subsequent experiments in various other districts, and there can be no doubt, experience shows, that every effort ought to be made to introduce it generally. There are some districts, however, as the sea-coast and its vicinity, where this variety would not flourish; and in these it is most desirable to try

that kind so generally and so advantageously known as the Georgia Sea island cotton.

In mentioning this very superior variety as suitable to maritime districts, I by no means intend to express an opinion that it must be confined to such localities; for although it delights and requires to have common salt within reach of its roots, yet this might be supplied by adding that saline manure to soils situated far from the sea. This is no mere theoretical notion, for I have seen strictly maritime plants grown a hundred miles inland by supplying them judiciously with salt, and among the number I would particularize one of the most intractable, the rock samphire (*Crithmum maritimum*).

The kinds which it has been endeavored to introduce here are:—Sea island cotton, Barbadoes cotton, Brazil cotton, Bourbon cotton (both black and green seeded), and China cotton. To this list may be added a variety called “the vine cotton,” a very superior kind, from *Jamaica*, the extraordinary fault of which was its having a staple *too long*. The seeds were distributed to Captain Jenkins at Gowhaty, and to a gentleman going to Mirzapore, but with what result does not appear.

Mr. Piddington has ingeniously suggested that new varieties could be raised by cross impregnation, as was successfully practised with the pea by the late Mr. Knight. This might, doubtless, be done in some instances, and is worthy of attention, because, although the kinds at present known are sufficiently excellent if correctly cultivated, yet they are not so perfect as to prohibit the hope of improvement.

Much, observes Dr. Royle, may be effected by introducing into India the different species and varieties which are already successfully cultivated in other countries; and here let us not restrict ourselves to too small a number of varieties, because they happen to be those which at present produce the best kinds of cotton. Not contented in America with possessing already the best kinds, they have tried those of other countries to ascertain if there are any among them suited to the peculiarities of their country and climate.

Districts best suited for Cotton.—As some one of the several species of cotton plants may be found in every district of Hindostan, from Cape Comorin to the Himalayan mountains, it is not an untenable position to assume that no portion of the globe, of similar extent, is capable of yielding so large a quantity of this peculiar produce. Indeed, from the earliest ages, cotton has been mentioned as the special production of India.

Now it is a fact in the history of vegetables, to which I remember no exceptions, that where the wild stock flourishes naturally, there the improved varieties succeed best. Examples occur in the English apples and the French pears; for in no country does the crab abound more than in England, nor the wild pear than in France. The inference I would draw from this observation is, that Hindostan ought eminently to excel in the production of cotton, and the comparatively limited experience we have yet had of the results of applying superior knowledge and superior capital to this object, encourages rather than represses the opinion.

That no part of India has a climate unsuited to the production of

superior cotton is demonstrated by the fact that the best samples are produced in Guzerat, at the north-western extremity ; in Behar, the very centre ; and at Tinivelly, on the most southern point.

It appears to me that it is the generally dry silicious nature of the soil of Guzerat, as much as the dryness of its climate, that is so extremely favorable to the growth of the cotton plant. It flourishes there even in the most sterile districts, though necessarily not so luxuriantly as in the more fertile soils.

The same observation applies to the neighboring province of Surat, where good cotton is produced ; but the best in that part of India is grown in the districts of Jambooseer and Ahmoed, and, indeed, throughout the Broach Pergunnah. This is stated, by a government report, to be very superior to the Nagpore or any other cotton grown on the eastern side of India.

Mr. Owen Potter, who was extensively employed in shipping cotton from the above districts in 1837, stated some very interesting relative facts in a paper which he submitted to the Manchester Chamber of Commerce. He says that " the chief cotton ports are Surat, Baroche, Tankaria Bunder, Gogo, and Bownugger." All these ports are within a short distance of each other. The extent of cotton cultivation in their vicinity is very great, as will be seen by the following statement of exports :

	1836.	1837.
From Baroche.....	42,000 bales....	20,000 bales.
" Tankaria Bunder.....	20,000 bales....	12,000 bales.
" Surat.....	25,000 bales....	15,000 bales.
" Gogo and Bownugger, including the Dholera cotton.....	60,000 bales....	45,000 bales.
Total.....	147,000 bales....	29,000 bales.

Each bale weighing about 400 lbs.

Nearly the whole of the cotton here mentioned grows within forty miles of the port at which it is shipped.

At Omrawutte cotton is grown at the rate of two pounds for two pence, in moderately favorable seasons ; and did good roads exist, this article could be delivered at Bombay at a handsome remunerating price. It is now carried on the backs of bullocks, and the extra cost thus incurred amounts to a penny a lb. more. This cotton is but little inferior to that grown in Guzerat, which is looked upon as the garden of the western side of India.

In the Deccan the production of superior cotton is not confined to the vicinity of Nagpore, for it can be obtained abundantly much farther to the north, at Calpee, as well as in the districts of Currah, Carah, and Etawah.

Cotton produced in the southern extremity of the Peninsula at Tinivelly and Coimbetore, has been highly approved in the English market.

At Tinivelly, where Mr. Hughes has been long engaged in the cultivation of the Bourbon cotton, that gentleman considers the vicinity of the sea, or situations to which the influence of the sea air extends, are on every account to be preferred. A dry soil, and a dry atmosphere, from March to May ; and from July to September, seem almost essential to the good quality of the wool, as well as to the

productiveness of the plant. The freest circulation of air and of light winds, are of the greatest benefit to a perfect culture.

On the other hand Mr. Heath, a gentleman also experienced in the cultivation of the same description of cotton, states that his experience differs from that of Mr. Hughes with respect to the influence of vicinity to the sea ; for he found the cotton come to perfection at the distance of one hundred and fifty miles from its shore.

I quote these results of experience as evidence that in India local climate is not particularly influential upon the cotton plant. All districts are suitable, but of course this circumstance has no reference to the importance of a free circulation of air and the penetration of light among the plants.

In Burmah, cotton is cultivated very extensively, chiefly for the China market, though the accounts are too discrepant (varying from 7,000,000 to 37,000,000) to allow of a satisfactory estimate being given of the annual amount. The greatest quantity is produced in the neighborhoods of Ava and Prome ; but that produced at Bauksk and that in the Mataban province (known as Tennasserim cotton), appears to have the longest staple.

It was even supposed that cotton was conveyed from Burmah to Dacca, to be employed there in the manufacture of its muslins ; but this supposition, unsupported even by probability, is contradicted by the Dacca custom-house returns, which show that scarcely more than twenty maunds were imported during the four years, 1828-31.

Soil and situation.—To arrive at a just conclusion as to the soil and situation best suited for the growth of superior cotton in Hindostan, it is most important to ascertain accurately the nature of those which have been practically found the most favorable in Georgia and elsewhere. This point being satisfactorily settled, and due consideration had as to the object to be obtained by the cultivation, viz.: the full development of the parts of fructification, we shall be able, with considerable probability of success, to point out those localities which will be found most productive in the different districts and elevations of India.

Of the nature of the soils where the best cotton is grown, we have information from Mr. Piddington. He describes a specimen of one of the best of the Georgia Sea island cotton soils, as appearing "like a mixture of fine dark grey sand and charcoal dust, with fragments of shells, wood, twigs, leaves, and even the shells of cotton seeds, the wood being in all states, from dry to charred, as if the rubbish of the cotton bushes had been burnt on the spot. Upon sifting nine ounces of the soil, taken fairly from the specimen sent, through muslin, it was found that eight ounces of it was fine sand, mixed with dark charcoal-looking dust ; and the remaining ounce coarse sand, with a few fragments of sandstone in thin horizontal layers, shells in fragments, with wood and vegetable rubbish as described above.

The wood and twigs were evidently the remains of cotton plants, and suggest that the specimen was taken from the surface. The nature of the subsoil on which it rests was not, unfortunately, made known. The black particles are certainly carbonaceous, and Mr. Piddington states reasons to justify his suspicions that they are fine-

ly-divided lignite. The fragments of shells were not sufficiently abundant to entitle the soil to be considered calcareous, but their slow decomposition would furnish a supply for centuries.

The following exhibits in a tabular form the result of experiments upon several specimens of American and India cotton soils :

COTTON SOILS.	Vegetable matter.	Saline and extractive <i>Grains?</i>	IRON.			Carbon of Lime.	Magnesia.	Alumina.	Silic.	Water and loss.	Price of best cottons in Liverpool.	REMARKS.
			Protox.	Deutox.	Tritox.							
<i>American.</i>												
1. Georgia Sea island	3.30	0.20	1.00	.....	.....	2.75	.....	0.30	92.00	0.85	24	Vegetable matter, peat, or lignite, partly soluble in cold water, silic in coarse grains.
2. Supposed Georgia Sea island..	5.00	0.60	1.30	.....	.....	4.00	.....	0.63	88.02	0.45	24	
3. Upland Georgia ...	4.60	0.10	1.35	.....	.....	2.90	.....	1.00	89.36	0.75	12	Ditto. Vegetable matter, peat, or lignite, but nothing soluble in cold water; no saline matters.
<i>Indian.</i>												
4. Bundelkund	2.00	0.33	.....	7.75	.....	11.00	trac	3.10	74.00	1.00	5	No peat or lignite; nothing soluble in cold water; silic in fine powder; <i>kankur</i> in the gravel.
5. Coimbatore	2.30	trac	4.00	.....	.....	7.50	trac	2.80	82.00	0.60	5	
6. Bourbon seed cotton (Tinivelly ?)	0.15	0.30	.....	.....	2.00	18.50	0.15	2.00	74.00	1.12	10	Gravel, almost wholly <i>kankur</i> ; some carbonate of iron, half the soil of gravel.
7. Mauritius	1.75	0.30	3.15	46.85	trac	3.50	43.60	1.85	12?		Silic mostly coarse grained; gravel, mostly calcareous.
<i>Singapore.</i>												
8. Best soil.....	0.15	0.60	.....	0.25	.....	1.35	.....	.....	88.30	0.55	9	Vegetable matter, mostly peaty, and very soluble.
9. Inferior soil.....	1.00	.....	.....	0.71	.....	0.071	.....	.....	86.85	.....	4	

The guarded conclusions which are drawn by Mr. Piddington from these researches, are—1st. That the abundance and fineness of good cotton depends on the quantity of carbon in the soil, and the solubility of that carbon. 2d. That the next best soil is one containing carbonate of lime. 3d. That the soil should not be too tenacious. "I have had repeated experience of this," he adds, "in Bengal; and on the Bombay side of India I observed, some time ago, that a Parsee gentleman, Furdonjee Cowasjee, had partly failed, or experienced much loss, in some experiments in cotton, in consequence of the clayey nature of the soil, which retained too much moisture. In the West Indies, the years of drought are far the most favorable to the cotton crops, and the Singapore soils are instances of cotton growing in what might be called pure sand with vegetable matter; but we must probably make allowances in these instances for the vicinity of the sea." 4th. That it is preferable for the sand to be in coarse particles.

These conclusions, in all of which I cordially agree, sustained as they are by inquiries which I have made, and by a host of concordant testimonies that have been published, concur in establishing one fact beyond controversy, viz., that superior cotton requires a light, porous soil for its production; and resting on a subsoil, permitting the easy escape of superfluous moisture.

Thus, writing from Tinivelly, Mr. Hughes states "that the red and brown loams, or indeed any silicious or calcareous soil, fertile

in a moderate degree, is the most suitable and fruitful. That no very rich, heavy, retentive, stiff soils, should ever be selected, for though the plants are luxurious, yet they have as much and more tendency to produce redundancy of wood and leaf than of fruit buds, besides harboring insects. What is commonly known in many parts of India, under the denomination of *black cotton soil*, Mr. H. states, is to be entirely avoided.

From Persia we have similar information; for there, we learn, that cotton is chiefly cultivated on a silicious soil, containing shells, and consequently well supplied with calcarious matter. Again, Captain Robertson reported to the Bombay government that the Bourbon cotton succeeded very well in the eastern parts of Broach, in the light sandy soils, as recommended by the cultivators of the Isle of Bourbon.

The Agri-Horticultural Society of Bangalore reports that the light brown soil of moderate depth and rather sandy (so prevalent in Mysore) seems to be the soil that suits the Upland Georgia and New Orleans: but the Sea island thrives in moist ground that is well drained. Captain Basil Hall says that for cultivating the New Orleans cotton, a soil, rich, light, and dry is to be preferred; but that it is generally thought *new land* does not produce a cotton so fine in *quality* as it does after bearing one or two crops of grain.

Mr. Ewart, speaking of his experience in the cultivation at Guzerat of Bourbon cotton, or a variety nearly akin to it, says, "it requires a dry sandy soil, and no irrigation: water or manure sends it all to leaves and branches."

The failure of the experiments made at the Akra farm by the Agri-Horticultural Society is also a forcible illustration of the unfitness of an over fertile, tenacious soil for the production of cotton. The Committee of the Society, reporting upon the failure, observe, "that it establishes the fact that the cotton of America will not flourish on a rich and moist soil, while its natural basis is for the most part composed of three-fourths of sand, and one-fourth of clay." This was evidenced "by the rapidity and luxuriance of vegetation, in the production of abundance of wood, leaf, and flower, but little produce."

These results of experience and observation point out that soils constituted almost entirely of the least retentive of all constituents, siliceous, carbonate of lime (chalk), and oxide of iron, are best suited to the growth of cotton—in other words, that the soil cannot be too light, whether it is upland or lowland, maritime or inland. This rule applies, I think, to all except the indigenous varieties of the *G. herbaceum*, which are most productive on soils much more fertile and tenacious than are suited to the superior kinds from Bourbon, Georgia, and elsewhere. This opinion is confirmed by the statements of Mr. Heath, who says, "that in the Madras territories two species or varieties of cotton plant are cultivated, and these require very different soils; one is annual (*oopum punthee*, *G. herbaceum*?), and the other perennial (*madam punthee*). The first succeeds only in the 'black cotton soil,' formed apparently from the decomposition of trap rocks; but the second only in a very light soil, formed from the disintegration of granitic rocks, especially when mixed with *kunkur* or calcarious

Mr. Heath made his experiments on the Bourbon cotton in the latter kind of soil, which is more abundant than any other in the districts on the Coromandel coast, south of Madras; and he entertains no doubt that the Bourbon cotton plant might be successfully cultivated wherever this kind of soil occurs. In introducing this cultivation, he had to encounter the usual difficulties consequent on the introduction of any novelty in agriculture; but these gave way to perseverance. At the end of four years, Mr. H. had the satisfaction of seeing the experiment completely successful, as in the seasons of 1823-4, he procured from the district of Coimbatore five hundred bales of clean Bourbon cotton, of three hundred pounds each, and the natives were at that time well satisfied that the cultivation of this was more profitable to them than that of the common cotton of the country.

That light soils should be best suited for the production of cotton superior both in quantity and quality, is precisely what our knowledge of vegetable physiology would have suggested. There is an axiom in that science to which I know of no exception; that whatever tends to promote the production of super-luxuriant foliage, and an enlargement of roots, proportionately diminishes the amount and perfection of the parts of fructification. A familiar example is afforded in England by the potato. Its varieties producing early tubers, are characterized by having little foliage, and no blossom; but if the tubers are removed as fast as they are formed, the foliage becomes more abundant, and they blossom as freely as the later varieties.

A soil abounding in moisture promotes the development of leaves and roots, not only by the superfluity of water, but by presenting to the roots the food of the plant rapidly and more abundantly than is done in a drier soil. To explain this, it need only be remarked that the roots of a plant are only capable of imbibing its nourishment afforded by the soil when it is in a state of solution. The roots of a plant in a light, dry soil, are wide-spreading and minutely fibrous; in a wet, tenacious soil they become more massive and fleshy, as do those of a hyacinth grown in water, which suggests that the food of the cotton plant obtained from the soil, should be presented to it very gradually, and never in super-abundance.

This leads to another important consideration:—

Manures.—The facts just stated indicate that rapidly decomposing animal or vegetable remains, if applied in considerable quantities, or even in small quantities, if not well mixed and dispersed through the soil, must be injurious to the crop. On the other hand, if the soil is poor or exhausted, a small quantity of such fertilizing matters may be applied advantageously. In such soils the American cultivators sprinkle a little well-decayed stable compost along the trench where the seed is to be sown.

The best of all fertilizers for cotton will be doubtless found to be peat, saw-dust, or other woody matters that decay slowly. The natives consider that wood ashes are excellent for the purpose, and the opinion is evidently founded on truth, for the carbonaceous matter remaining in them after combustion, is in a state to become slowly available to the plants.

pect of success, is *bones*, crushed to fine powder, and sown broadcast in very small quantities.

Mr. Piddington recommends *lignite* (fossil wood) peat, farmyard manure, wood ashes, decayed leaves, mud from old ditches, oil-cake, the cotton seed of the preceding crop, pressed or fomented to prevent germination, and charcoal of all kinds, "excepting perhaps the ashes of soondry and other woods near the sea, which may contain too much muriate or carbonate of soda." Why this exception is made I cannot understand, because, of all the saline manures, the two just named have been found in Europe the most beneficial, if judiciously employed.

So far indeed from agreeing with Mr. Piddington in deprecating the use of common salt (muriate of soda or chloride of sodium) as a manure for the cotton plant, I believe it will be found to be one of the most useful that can be employed in its cultivation, and I would most earnestly urge upon every cultivator to give it a fair and careful trial.

I have seen common salt employed too generally and successfully in England, to come to any hasty conclusion that there is a single crop in India which is incapable of being benefited by its application. Let it be remembered that this manure destroys predatory vermin, abstracts moisture from the atmosphere, thus tending to keep the soil regularly moist; *promotes* the decay of stubborn vegetable remains in the soil, being antiseptic only when present in large quantities, and that it acts as a gentle stimulant to the plant, promoting its health.

I am not driven to advocate the employment of common salt as a manure for the cotton crop upon conclusions drawn from these general principles alone, for we have direct and satisfactory testimony upon the subject.

Mr. Bolingbroke says that in Demarara the British settlers found that the cotton plantations succeeded better on the sea-coast than on the banks of the river, a superiority which he attributed to its containing more common salt. This opinion that salt promotes the growth of the cotton plant is also expressed in the third report of the African Institution, it being stated positively that the saline air of the sea-shore, though generally destructive to the coffee plant, is favorable to the cotton.

Mr. Bernard Metcalf, remarking upon the cottons of India, observes, "that the Georgia, Sea island, Surinam, and Demerara cotton plants are all grown on the border of the sea, and the prime qualities only so far inland as the influence of the sea air and tide waters extend."

This fondness of the cotton plant for maritime places has been observed also in other parts of the world, for Mr. Bruce, who resided many years in Persia, states, that the cotton was always fine in proportion as it was grown nearer to the sea.

It might be objected, that the benefit the cotton-plant derives from the vicinity of the sea arises possibly from some other cause than the saline matter thence obtained, but such surmise is rebutted by the results of direct experiments.

A report, published in 1827, by the Hon. Mr. Seabrooke, Corres-

Carolina, seems to put beyond dispute the importance, not to say the absolute necessity, of using common salt as a manure, if a superior stapled cotton is desired. His researches were especially directed to ascertain the cause of the fineness of the Sea island cotton, and the conclusion to which these researches led him was, that *salt mud*, the almost sole manure used by the best planters, was a principal cause of the superiority. "This manure," observes Mr. Seabrooke, "is known to impart a healthful action to the cotton-plant, inducing it rapidly to mature its produce, and giving it a staple at once strong and silky." One of his relatives, by steadfastly adhering to the application of soft mud, literally converted a barren waste to a soil as fruitful as any of which Edisto island can boast.

Capt. B. Bailey, a member of the before-named Agricultural Society, demonstrated that one bushel of salt, added to sixty bushels of compost, and spread upon the soil of a cotton plantation, improves most decidedly the quantum and quality of the crop.

This testimony, sustaining the legitimate conclusions deducible from scientific considerations, must justify my urging the importance of attending to the merits, and testing carefully the effects, of one of the cheapest of manures—cheap, from the small quantity required to a biggah; for I believe that half a maund will be found sufficient, and the most beneficial time for applying it (by hand broad-cast), just before sowing the seed.

Let its value be tested fairly; part of the plantation being salted, and part left untreated. Let the produce of an equal number of shrubs on each be brought separately to the scale and to the merchant, and let these decide the question. Let no one be deceived by that suggestion of idleness, "I can see no difference;" for I would impress upon all the result of my own experience, and that of a hundred others, that *common salt promotes the development of the parts of fructification, and rarely or never increases the luxuriance of the plant*. These are precisely the contingencies desirable to be obtained for the cotton shrub; and I would conclude this head of my subject by suggesting as probable, that the use of salt as a manure will enable the Sea island cotton to be cultivated in inland districts.

It is said that gypsum (sulphate of lime) may be used with success as a manure to cotton-lands, not near the sea. Lands so situated usually contain a minute proportion of this earthy salt. It perhaps, therefore, acts beneficially by entering into the constitution of the plant, as it does into that of clover and lucerne; crops, which have been ascertained in England never to succeed well on soils in which this salt could not be detected.

Preparation of soil before sowing.—No ground should be cropped with two successive growths of cotton, as the produce of the second is always inferior to the first, both in quantity and quality. This rule applies whether the plants remain in production only one or more seasons. Following and cropping alternately is recommended by some planters; but this is certainly an unnecessarily losing system, for if an intermediate crop of any kind is grown, especially if manure is given, and a strictly clean husbandry followed, the succeeding crop of cotton has never been known to be injured; but on the contrary, it has been improved.

In the south-western parts of Mysore they cultivate cotton in succession to millet. As soon as the millet is harvested, about the autumnal equinox, they immediately plow the field, and endeavor to cleanse it more effectually by hoeing it twice with the *custay*, or bullock hoe. Manure is then put upon the field, which, after the first rain, is again plowed.

In Bundelcund, land which has borne a winter crop is usually selected for cotton the following year, and the seed appears to be sown upon it without even the previous preparation of plowing.

In other parts of India, although this previous preparation is not quite so neglected, yet in no district is it sufficiently attended to. The cotton-plant roots deep, and never succeeds in any soil not permitting the ready extension of its radicle fibres. This circumstance decides the importance of having it brought to a deep and fine tilth before the seed is sown. A Bombay government report of 1811 states, that in Georgia and Carolina incessant labor is bestowed in plowing, harrowing, trenching, and hoeing the cotton-fields.

This is confirmed by Capt. Basil Hall, from actual observation in Georgia. "The preparation of cotton-land," to use his own words, "requires most particular attention; it must be repeatedly plowed, and frequently harrowed, say twice or thrice, until it is fully pulverized."

The committee, in reporting on the experiments made at the Akra farm, are very particular in enforcing this preliminary cultivation. The success, they say, of a good crop will depend upon the land being dug to a sufficient depth; if less than eighteen inches, the tap-root, which is exceedingly delicate, and extending nearly that length, becomes obstructed, and the growth of the plant is checked.

Choice of Seed.—The employment of seed, possessing its full vegetative power, is a consideration of primary importance, whatever may be the crop under cultivation; but where the seeds are of an oleaginous nature, as is the case with those of cotton,* even extra caution is required, on account of the facility with which their germinating power is injured and destroyed.

Upon this point there are many particulars requiring attention. The seed ought to be selected from the most perfect early stalks, produced on the best soil. Mr. Seabrooke adds, "that frequent change of soil and situation is indispensable to sustain the quality of the cotton produced by any particular kind of seed; and employing mixed and bad seed is the origin of the indifferent quality of the produce of many countries. That which is intended for sowing should be known to be new, and ought to be well cleaned previously to sowing. At Surat, this is effected by rubbing it over a kind of sieve, called a *cott*, the bottom of which is made of close and tightly-strung coir. The refuse cotton, and a great many of the light seeds, are left upon the coir, and the good seed falls through. But it is best, in order to secure the employment of none but perfect heavy seeds, to put the whole into water just previously to sowing, and reject those which float upon the surface."†

* In Burmah, they are burnt in the open air to give light at festivals.

† *Seabrooke's Rep.*, in 1827, on *Sea Island Cotton*—We are told that in Burmah they

The quantity of seed employed per biggah varies considerably. In Surat, 5 seers are sown upon a biggah; in Poorneah, 10 seers on a biggah, equal to 3,600 square yards; in the Dooab, 5 seers on a biggah, containing 2,800 square yards. Pierce Butler, Esq., a successful cultivator in the Georgian Island, St. Simon's, says "that a bushel of seed is required for an acre."

No particular quantity need, however, be assigned, because, if the best mode of sowing is adopted, drills will be made at eight feet apart throughout the field, and the seed inserted in them at three inches distance.

Time of Sowing.—The committee, who reported upon the causes of the failure of the Akra farm, included among them "positive ignorance of the proper season for sowing;" and, as a more fatal mistake cannot occur than that of performing this operation at a wrong period of the year, it may be well to accord those months which have been selected by the most skilful cultivators.

Mr. Hughes, already mentioned as a grower of Bourbon cotton, at Tinivelly, says, "that there, if the seed can be got into the ground in September, the young plant may be able to resist the continued wet of a heavy monsoon; but little is gained by sowing in October, November, and December, unless the land is very high, dry, and free from weeds. The clear interval of these months, especially early in October, answers well for transplanting, and the first week of January very well, in general, both for sowing and transplanting."

Mr. Gilder, who has also cultivated the Bourbon cotton successfully, at Guzerat, sowed at the end of July, after the heavy rains had ceased.

In America, Captain Hall says, "The sowing is performed from the beginning of April to the 10th of May."

In Central India, Baboo Radhakant Deb relates that the sowing is performed "during the month *Assar* (from mid-June to mid-July), or when the sun enters the sign of Gemini."

In the Dooab and Bundelcund, Mr. Vincent says, "The seed is committed to the ground immediately after the first heavy showers at the end of June, or beginning of July."

In Burmah the seed is sown in the beginning of the rains in April or May.

In the vicinity of Dacca the sowing is performed in October and November.

In the district of Poorneah the seed-time is March and April.

The object to be kept in view is to have the blossoming and harvest-time during the dry season, because heavy rains at such periods of the plant's growth are fatal, both to the quantity and quality of the production.

Sowing.—The best mode of arranging the land for the growth of

Seed intended for exportation, it may here be remarked, with the intent that it shall retain its vegetating power when it arrives at its destination, should not be at all separated from the cotton. Such separation invariably occasions a loss of the power to germinate during a long voyage. To preserve it, it should remain enveloped in the cotton well dried, and be packed tightly in tin cases, soldered to exclude the air. If casks are employed, it should be kept in a dry situation upon the gun-deck of the vessel, but in whatever manner packed, it must never be subjected to the heat of the ship's hold.

the cotton-plant is by dividing it into flat beds at least four feet wide, for the smaller kinds separated from each other by alleys about eighteen inches broad. The seed being sown in a single row down the centre of each bed affords a space of five and a half feet between each two rows.

For the larger kinds, as the *G. acuminatum*, the Bourbon, &c., the beds should be seven feet wide. Mr. Hughes, so often before mentioned, says that the rows ought to be eight feet apart, and the plants thinned in the rows to the same distance. The facility for plowing and hoeing is so great, besides the great advantage of a free circulation of air, that Mr. H. particularly insists on this method, especially as he knows that too close planting is a common mistake.

In Mysore the rows are made two feet apart, and even in some districts of America the intervals are only three or four feet apart; but if there be any increase of quantity obtained by this crowded culture, it is certainly at the expense of quality; and loss is insured by the unnecessary exhaustion of the soil by superfluous plants, and the operations of hoeing, &c., are extremely retarded.

The best mode of sowing is by opening a drill down the centre of each bed by means of a hoe, which insures that the seed shall be buried at a regular, and not too great a depth. The depth should not be more than one inch or one inch and a half.

The seed may be strewn by hand along the drills, about three inches apart, and the earth immediately drawn over it by the hoe. In Mysore, they use a thorny bush for the purpose.

In some parts of America, they open a row of holes with the hoe about a foot apart, sprinkling a handful of seed in each; and in Burmah they adopt the still more slovenly mode of sowing broad-cast.

Preparation of the Seed.—I have already noticed that, in Burmah, the seed is washed before it is sown; but as I am not aware that the cotton plant is liable to the attack of any parasitical plant, I do not see that this operation can be of any benefit beyond removing the seeds which are light and imperfect.

In Central India they wet the seed, and then roll it in powdered cow-dung, waiting until the seed is nearly dry before they commit it to the ground.

About Dacca they merely wet the seed for a few minutes before it is sown; but in Bengal they frequently do not sow it until, by keeping it moist, it begins to germinate.

Dr. Anderson tried all these modes, as well as the mixing of various composts with the seed, but could not perceive that there was any difference in the size or strength of the young plants.

Mixing Crops.—Mr. Gilder, who made some successful experiments in cultivating Bourbon cotton in Guzerat, during the year 1816, grew with it *bejaree*, sown in drills as usual, at the same time. Indian corn is similarly mixed with the cotton crop in the Isle of Bourbon, being held to shelter the tender plants from the sun. Mr. Gilder found the *bejaree* to answer the same purpose; and he says it ought to pay the expense of rent and cultivation the first season, during which the cotton plants yield nothing.

In Burmah they sow brinjalls and other culinary vegetables with the cotton: and in Rundelcund. either *urbur*. *tillil*. or *motee*. are

similarly mixed with it. Indeed, it may be considered as the general practice, but this universality is no justification; and, after some years' experience in cultivating plants, I have never yet found two crops which could be grown together without one interfering with the operations that might be usefully performed to the other, or being in some other way prejudicial. In India, neither land nor labor are so dear as to render it desirable in an economical point of view. The plea of sheltering the cotton plants will be found invalid, for the shelter has a more than equivalent drawback by rendering the plants weak and spindled.

After-culture.—The after-culture consists chiefly in hoeing and stirring the soil, not only for the purpose of extirpating the weeds, but to pulverize the surface, so as to facilitate the penetration of the air, and the absorption from it of moisture by the soil. This is particularly beneficial in the driest periods of the year, when, as is not generally known, the atmosphere is saturated with moisture.

The seedlings make their appearance in three or four days after the seed has been sown, and in two or three more develop two leaves. The thinning and weeding may then at once be commenced, this being at first carefully done by hand, for the young plants are very tender and easily injured. Mr. Butler, who has been more than once mentioned as a distinguished cultivator in the Island of St. Simon's, Georgia, recommends that the hoeing should be repeated at least once every twelve days until the plants flower, or even until they pod, if the ground is foul.

At such hoeing the thinning must be also attended to, which must be done moderately until the third hoeing; the plants will then be out of danger from the worms, and large enough to bear drought.

In Mysore Dr. Buchanan found that the native cultivators performed the hoeing even still more frequently, drawing the *custay* or bullock-hoe between the rows once in every eight days, until the cotton is ripe.

The thinning should keep pace with the growth of the plants, and when they have attained the height of three feet they should be finally thinned to eight feet apart, or whatever less distance may be determined, but the greater the interval the better.

Suckers thrown up about the root must be removed as formed.

Pruning is advisable, if done with judgment.

Mr. Butler says that the Sea island cotton requires not only the suckers to be removed, but, if the plants are vigorous, to have their tops pinched off once or twice.

Mr. N. Savi goes so far as to say that all who understand the cultivation of the Seychelles and Bourbon cotton agree that, to make them produce a fine quality of down, they should not be allowed to grow higher than three feet, which may be effected by cutting off the tender tops of the stems as soon as the first blossoms appear. This causes them to spread wide in their horizontal growth.

Mr. Higgins, in describing the cultivation of Upland Georgia cotton at Allahabad, says that "topping may or may not be resorted to; it may strengthen the plant, but I think it makes them later in bearing."

bon cotton so successfully at Tinivelly, prunes his shrubs twice in the year, the first and principal, as soon as the heavy rains have passed away, that is from the 15th to the 31st December, when the shrub is cut down, generally to two feet high and two feet wide, only the firm wood being left with the strong white and brown bark. In the fine days of January the plantation is plowed thoroughly three or four times. In less than two months the whole is again in the finest foliage and full blossom, and continues in full bearing all the months of March, April, and May. A good many pods still remain in June, early in which month a second pruning is practised of the long, straggling, twisted, soft shoots, with diminutive pods. Good produce is yielded from July to September, unless the plants receive damage in these months from rain.

In Persia, after the crop is gathered, and the leaves fed off by sheep, the poor women are allowed to break the shrubs down close for fire-wood. The stumps shoot out again as luxuriantly as ever when the season returns.

Transplanting.—If any vacancies occur in the rows while the plants are young, these may be successfully filled up by removing to these places some of the plants from situations where they may be growing too thickly; otherwise, it is not a practice to be commended, as it renders the plants at least a fortnight later in coming into production.

Watering.—Although the cotton plant requires a light silicious soil, and is destroyed by water remaining stagnant around it, yet excessive dryness of soil is to be avoided. It may even be flooded with advantage, provided the water is allowed to flow off quickly again.

To preserve the soil in a due state of moisture, considerable attention is requisite during every period of the plant's growth. The object is to keep it soft and damp, so as to allow the free extension of the roots, but at the same time to avoid having the texture saturated with wet; and, much more, never to have so great an excess as to suffer the water to stand in pools upon the surface. The same precaution is requisite at the time of sowing: for water in excess at that time either induces the total decay of the seed, or causes its germination to be weak and unhealthy. When the shrubs are well grown and strong, which they are by the end of October, they seldom require more moisture than they acquire from the heavy dews which then accompany the cold weather. This, however, is not the case if the weather be dry. Particular attention to this point is requisite during the blossoming time.

The flower-buds appear in November, and in the course of five days the blossom is fully open. The flower falls off after being expanded about four days, leaving the pod apparent. Bright weather and heavy dews are to be desired during the blossoming: rain at that time destroys the crop. The pod requires about four weeks for ripening, this period being curtailed or extended in proportion to the heaviness of the dews and brightness of the sunshine at the season. A deficiency of either delays the ripening. If the dews are particularly light, a gentle watering may with advantage be occasionally given. In Peru and Egypt the irrigation of this crop is most carefully attended to, and the results are proportionately beneficial.

Gathering.—The season for gathering differs in India with the place of growth.

Mr. Gilder, at Guzerat, picked his Bourbon cotton from the end of November to the close of January—a second, but more scanty crop occurring in May.

In Central India, Baboo Radhakant Deb says, the pods are ripe in the month Choyte, when the sun enters Pisces (mid-March to mid-April), and that the gathering continues until the close of May.

About Dacca the crop is gathered in April, May, and June; and where the situation is beyond the reach of inundation, a second crop, but inferior in quantity and quality, is obtained.

In Bundelcund, on the poorer soils, the crop begins to be collected about the middle of September, but from those of the richer and more northerly situated soils, not until November and December.

When the pods are ripe, which they are in less than two months after blossoming, three of their sides burst and the cotton protrudes through the fissures. In five or six days after the pods have burst the cotton is usually gathered, though it is often allowed to remain longer. At Surat they wait for ten days, and continue the gathering once after every similar lapse of time until the close of April, by which time the cotton is all gathered.

There is no doubt that the being allowed to remain so long without being gathered after the pods have burst, is not injurious to the quality of cotton, but it is at the same time quite as certain that it is in no way beneficial. Granting this, however, to be immaterial, the plan of allowing it to remain seems objectionable, upon the plain reason that every day renders the skin of the pod and the leaves of the calyx more brittle, and consequently increases the liability to injure the quality of the crop by their fragments getting intermixed.

I have a strong opinion that it would be found in every way advantageous to gather each pod immediately that it shows symptoms of bursting, as enabling the cotton to be separated from it without so much liability to contamination from its fragments. However this may be, experience teaches us that the gathering should be effected very early in the morning while the dew is upon the plant; the calyx is at that time pliant, yielding to the hand without breaking, and consequently keeping the cotton free from leaf.

In gathering, care must be taken to grasp at once all the locks of cotton in the pod, so that they may come away together. If any dry leaves fall upon the cotton before the gatherer has secured it in the bag hanging by his side, they must be carefully removed. This bag must be covered to prevent the admission of pieces of the dry leaves, always to be found about the branches, and which are disturbed by a very slight agitation. It is this admixture of leaf which is so much objected to by the spinner and proportionately lowers the value of the cotton. After gathering, it should immediately be thoroughly dried, whether it is to be stored or at once dressed and packed. A woman in America will generally gather twice as much per day as a man.

The pods which burst the earliest, usually those on the tops of the shrubs, produce the finest cotton; the quality as well as quantity diminishing as the plants decrease in vigor. This is so appa-

rent, that the cotton of the first two gatherings is usually worth three or four rupees per candy more than that of the later gatherings.

Produce.—In favorable seasons a biggah in *Guzerat* will produce 25 maunds of cotton, mixed with the seeds. Where these have been separated by the wheel or cheriah, the cotton will be found to weigh about 9 maunds, and the seed 15 maunds. In the eastern and southern parts of India, two or three maunds of clean cotton is the estimated average of a biggah.

Twenty-seven biggahs in *Broach* produce $44\frac{1}{2}$ maunds of clean Bourbon cotton, fully equal to that of the island after which it is named.

In *Poorneah* five maunds of uncleaned cotton are usually grown per biggah.

Dr. Buchanan says, that in *Mysore* the produce varies between 110 and 270 lbs. per acre.

Captain Hall states, that in *America* from 400 to 500 lbs. of cleaned cotton is produced from a similar space of ground.

In Central India Baboo Radhakant Deb states, that a biggah yields about one maund and three-quarters of cleaned cotton.

The comparative proportion in weight between the cotton and the seed usually varies from one to four and one to three. It is, of course, a great object in the growth of cotton to obtain an increase in the proportion of wool produced above that of the seed. At *Shahabad* this was effected in the instance of Egyptian cotton. Mr. Seyburne says, its produce there was not only superior in staple, but was half cotton and half seed, while the country plants yielded only one part cotton and three parts seed.

STATISTICS OF COMMERCE AND MANUFACTURES.

I.—FACTS IN THE COTTON MANUFACTURE.

We must be allowed to press the call that we have from time to time made for information upon the present state of the cotton manufacture in the Southern and Western States. We have been turning in every direction for this knowledge, but have only obtained a limited amount. Will not citizens in different States aid us in obtaining the correct data? We have abundance of notes which were taken in the study of the manufacturing system, and in the inspection of those in our own country, which will be embodied in several interesting articles hereafter.

DECLINE IN THE VALUE OF COTTON GOODS.

Mr. Woodbury, in his report, 1836, made these remarks:

"The value of manufactured cottons, when the quantity of raw cotton in them is the same, differs greatly according to different periods of time in the same country, and according to the quality of the raw material, and the machinery used, and the skill employed.

"Thus, in England, in twenty years after Arkwright's invention in spinning, manufactured cottons fell nearly eight-ninths of their former price. Every ten years since, some have computed their fall in price as equal to 50 per cent. In the American Encyclopedia, article 'cotton,' it is said that, from 1815 to 1829, the coarse cloths fell two-thirds. In 1810, yarn, on an average, was worth \$1 12½ per pound. In 1814, it was estimated under \$1 per pound by Cox. In 1822, it was said that the cost of making most species of yarn had been reduced, since 1812, about a half, and that of weaving by power-looms, &c., still more. Some of the differences as to the whole value of manufactured goods, spring from not advert-

ing to all the fall in prices, though the yarn and cloth have increased in quantity. In 1786 spinning cost 10s. per pound of No. 100, in 1824 only 8d., or only 16 cents instead of 240 cents.

"The best cotton goods are supposed to be made in Switzerland, where the skill and machinery are good, and the climate congenial. But the raw material being carried so far by land is expensive, and the manufacturer cannot compete with England, though 20 per cent. cheaper than in France.

"In France many fine goods are made by skill and experience; but the machinery is poorer, and costs more. Hence the prices in those two countries of the cloth made from a pound of raw cotton exceed, on an average, 50 cents, while in England they are about 50 cents, and in the United States are now somewhat less. In 1806 the cotton was made chiefly into velveteens, nankeens, crapes, muslins, &c.

"But in 1810 our cotton cloths made in houses and manufactories, on an average, were estimated at 33 cents per yard. The prices are now lower, notwithstanding the introduction so extensively of finer cloths and of printing calicoes.

"We make more coarse and substantial cloths of cotton now than England, and they can be afforded cheaper by two or three cents per yard. They are in greater demand abroad. We put more staple into them, the raw material being cheaper here. But the English laces, being made chiefly of Sea island cotton, with a very little silk, enhance the value of each pound to over \$5; and the whole manufacture of it equals nine millions of dollars per annum, and 30½ millions of square yards.

"The coarse India cottons are made of the worst materials and less smooth, being chiefly spun by hand, and the raw material poorer. But the thread so spun is softer and the cloth more durable. But the power to spin a fine thread there has been carried almost as far as in England."

IMPROVEMENTS IN COTTON MACHINERY—THE SPINDLE.

It will be observed that this was written ten years ago, and must give an inadequate notion. We publish it intending to mark the farther improvements in a subsequent number.

"With a view to furnish a few more details, which may possess some usefulness and interest, it may be remarked, on the power of the spindle, that, by improvements in machinery, it is said that one now sometimes revolves 8,000 times in a minute, instead of only fifty times, as formerly, and that one will now spin on an average from one-sixth to one-third more than it did twenty years ago. Indeed, in 1834, it is said that one person can spin more than double the weight of yarn in a given time that he could in 1829. The quantity of raw cotton spun by one spindle depends, of course, on the fineness of the thread and the quality of the machinery. In England, where a considerable portion of the yarn is finer, the average is about 8½ ounces weekly, or from 27 to 28 lbs. yearly; while the average in the United States is about 50 pounds yearly, of yarn number 20 and 25 in fineness, and about 26 pounds of number 35 and 40. In 1806 the average was computed at 45 pounds per spindle, of cotton yielding 38 pounds of yarn. The difference in weight between the cotton and the yarn, by loss from dirt and waste, is usually estimated from one-twelfth to one-eighth. At Lowell, 100 pounds of cotton yield 89 pounds of cloth, though the average here used to be estimated only 85 pounds, when cotton was not so well cleaned and machinery less perfect. One spindle at Lowell produces, through looms, &c., on an average, 1 $\frac{1}{4}$ yards of cloth daily; but this result must differ greatly with the fineness of the thread, excellence of the looms, width of the cloth, &c.

"In 1830 it was computed that 37 spindles were necessary to supply one loom; though in 1827, at Lowell, the actual proportion was only 26, at Exeter, in 1831, it was 29, and now at Lowell it is 31. The number of looms in England in 1832 was only one to about 40 spindles, so much more yarn is made and not woven there, and those were mostly hand-looms. But in 1834 the number of them was about 100,000 power-looms and 250,000 hand-looms, or in all, about 1 to 30. One loom formerly wove daily about 20 yards of cloth of the ordinary seven-eighths width, more of the 26 inches in width used for calicoes, and less of the five-quarters wide. The average now is from 30 to 40 yards of No. 20. At Lowell, in 1835, it was 38 to 49 yards of No. 14, and 25 to 30 yards of No. 30. It requires from four to five yards of cloth of Nos. 20 to 25 yarn to weigh one pound, and five to six yards of Nos. 35 and 40.

"The power of the spindle, as connected with the number of persons actually employed in factories, is, that in making plain cloth of ordinary width and fineness, one person is needed to conduct all the business from the raw cotton to the finishing of the cloth for every 20 spindles. If the cloth be colored and printed or stamped, one person will be wanted for every seven spindles. This would be about 250 persons for all purposes in a factory of 5,000 spindles, making plain brown cloth. One person can manage from two to three power-loom.

"The proportion of spindles to a factory was formerly very small, both in England and this country. Before 1806 it was only one or two hundred sometimes, and seldom exceeded 1,000. Soon after that some mills were built containing 4,000 spindles. The average in new mills is now from 5,000 to 6,000. In Lowell, 1836, in 27 mills they have 129,828 spindles, or a little under 5,000 to each, though they print, &c., in some.

"A factory with 5,000 spindles must be about 155 feet long and 45 wide, four stories in height, and contain about 140 looms, with other suitable machinery for picking, warping, sizing, &c. Such a one, with a few shops and out-houses appurtenant, and land and water privilege, would cost from \$140,000 to \$220,000, according to the materials for building, whether wood, brick or stone, and the distance from navigable waters, so as to affect cost of privilege, freight, &c., with other circumstances too numerous for recital. If bleaching or printing cloths be added, more expense will be necessary, and more persons than 250, the average for such an establishment including machinists.

"This would be a permanent investment of capital in buildings, water-power, machinery, and all appurtenances, equal to \$28 or \$44 per spindle, independent of the temporary investment of capital to buy raw cotton, pay wages, &c. It would oftener reach, and even exceed the latter sum, than only the former. In 1810 it was computed that the capital actually invested in machinery and real estate averaged \$60 per spindle. It is not proposed here to go into any comparisons of this expense now with former periods, or with other countries, except in regard to the spindle alone, and the machinery as a whole.

"In 1806, when machinery could not by law be exported from England, and the machinists here were unskilful and few, the spindle and its appurtenances, from the picker to the loom inclusive, it is computed, cost \$30 each; or 300 to 400 per cent. higher than it cost at that time in England, and over double its present cost in the United States.

"The great fall in its cost and value since, with various improvements in machinery, has been the cause of much loss to many capitalists employed in the manufacture. By A. D. 1820 the machinery cost only about double its then value in England. In 1826 the machinery was made here, on an average, for about \$14 per spindle; and though now lower, it still costs from 40 to 60 per cent. more than in England. The whole machinery there, and the mill, cost only \$4.16 per spindle. But that includes, probably, no looms, &c., and merely the building, without the water or steam power, and the mule spindle, moved by hand, and costing less than half what the throstle spindle costs, and which is chiefly in use here. In France, in 1833, the spindle alone, which is about half the expense of all the machinery, cost \$8. It used to cost there \$10. Now the spindle alone costs here about \$4½ if of the throstle kind, and \$2½ if of the mule kind. In some places in the United States, five per cent. higher. The former alone cost here, late as 1826, it is said, \$8 each. The spindle used in the filling frame, quite extensively at this time, costs about \$6.

"These may constitute useful and sufficient data for farther computations. As a matter of some curious interest it may be added, that *one pound* of cotton usually makes eight yards of coarse muslin, and is then increased in value from the raw cotton eightfold. But if spun into the finest yarn it is worth five guineas, and in 1780, if woven into muslin and tamboured, was worth £15. It may now be converted into a piece of lace worth 100 guineas. In India, in 1786, they could spin cotton threads over 115 miles to the pound; in England they have since been spun 167 miles long from a single pound. One pound of cotton spun into No. 100 yarn, extends about 84,000 yards in length. The yarn spun yearly in England would reach round the globe 203,775 times, or over 600 times each day.

"They use flour for sizing, &c., in cotton manufactures, 42½ pounds to each spindle per annum, or four pounds weekly to each loom. In this country, but one pound weekly to each loom. But at Lowell, 3,600 barrels to 4,197 looms, yearly, or near four pounds each per week. In England three times as many spindles and factories are moved by steam as by water. In the United States not one in a

hundred factories is moved by steam. The power to move all the cotton mills in England equals that of 44,000 horses, of which only 11,000 is by the water-wheel. In 1824 the whole power was estimated at only 10,572 horses. Each factory of common size and employment requires from 60 to 80 horse power here, or about $1\frac{1}{2}$ horse power to 1,000 spindles."

Dates of the most important changes in the cultivation, manufacture and trade of cotton.

- 1730.—First cotton yarn spun in England by machinery, by Mr. Wyatt.
 1742.—First mill for spinning cotton built at Birmingham; moved by mules or horses; but not successful.
 1756.—Cotton velvets and quiltings first made in England.
 1761.—Arkwright obtained his first patent for the spinning frame, though he made farther improvements in 1768. Became free 1784. Baines says his first patent was in 1769. So does Wade, and that his second patent was in 1771.
 1779.—Mule spinning invented by Hargrave, or rather perfected by Crompton.
 1781.—First imports of raw cotton into England from Brazil; poorly prepared; and in three to nine years after, first from United States of their own growth; and from India and Bourbon about 1785.
 1782.—Watt took out his patent for the steam-engine, though some say in 1769 the first one, and got into general use to move machinery in 1790. He began his improvements in 1764, according to Wade's history of the mid-dling classes.
 1785.—Power-looms invented by Doct. Cartwright; though previous to that some similar models had existed which had not been patented or used. Steam engines used in cotton factories. Cylinder printing invented by Bell. Arkwright's patent expired, and a great impulse to manufactures of cotton.
 1789.—Sea island cotton first planted in the United States; and upland cotton first cultivated for use and export about this time, or three or four years previous. Some say in 1786.
 1790.—First cotton factory built in the United States, in Rhode Island. Water power first applied to the mule spinner, by Kelly.
 1793.—The cotton-gin invented by E. Whitney, in the United States. This is often stated to be in A. D. 1795; but the patent is dated in 1794, March 14.
 1798.—First mill and machinery erected in Switzerland for cotton.
 1803.—First cotton factory built in New Hampshire. Power-loom, as now used, perfected in England, and patented by Harrock.
 1806.—Stamping the cylinders for printing cloth by means of dies introduced at Manchester.
 1810.—Digest of cotton manufactures in the United States, by Mr. Gallatin, and another by T. Cox, Esq., and public attention drawn to their growing importance.
 1815. } The power-loom introduced into the United States first, at Waltham; in
 1816. } 1815, it is said in American Encyclopedia, article "cotton."
 1822.—First cotton factory erected at Lowell.
 1826.—First exports of American cotton manufactures to any considerable value.

2.—CANADA—TORONTO.

The population of this region north of the United States, and south of the heights separating the waters of the St. Lawrence and Hudson's Bay, is estimated at one and a half million.

The region is snowy one-third or half the year, interrupting agriculture. The wheat crops since 1832, have greatly suffered by the annual depredations of an insect. While Canada formerly exported largely of breadstuffs, she now is compelled to import for consumption. We give the statistics of the imports and exports of Toronto.

TRADE OF THE PORT OF TORONTO, JANUARY 1846—JANUARY 1847.

Vessels entered the port—

Steamers and coasters employed between the British ports.....	2,069
From foreign ports—	
With cargoes.....	650
In ballast.....	2
	} 651

Total arrivals for the year..... 3,750

IMPORTS, TORONTO.

Articles, &c.	Quantity.	Articles, &c.	Quantity.
Cows.....	No. 1	Muscovado sugar.....	cwt. 14,071 3 7
Horses.....	No. 8	Fish—dried, salted, and	
Lambs.....	No. 2	pickled.....	cwt. 390 0 24
Oxen.....	No. 60	Teas, various qualities..	lbs. 405,541
Pigs.....	No. 10	Tobacco.....	lbs. 299,826
Sheep.....	No. 1,000	Segars.....	lbs. 2,990
Clocks and watches....	No. 507	Snuff.....	lbs. 5,886
Flour.....	bbls. 23	Leather.....	lbs. 95,199
Tallow.....	bbls. 1,516	Raisins.....	lbs. 125,860
Salt.....	bbls. 9,316	Rum.....	gallons 1,528
Oysters, lobsters, and		Cider.....	gallons 3,935
turtle.....	pkgs. 1,888	Spirits.....	gallons 4,452
Books and paper.....	pkgs. 1,668	Wines.....	gallons 2,153
Cotton manufactures....	pkgs. 888	Coal.....	tons 1,143
Glass.....	pkgs. 885	Boots and shoes.....	pairs 3,247
Woolen.....	pkgs. 426	Apples.....	bushels 2,732
Silk.....	pkgs. 120	Potatoes.....	bushels 114
Drugs and medicines..	pkgs. 345	Total value of imports, in-	
Hardware.....	pkgs. 2,453	cluding other goods, pay-	
Cheese.....	cwt. 548 1 20	ing <i>ad valorem</i> duty....	£169,477
Butter.....	cwt. 27 0 14	Value of free goods—being	
Bacon and ham.....	cwt. 75 2 0	furniture, household ef-	
Meats—salted, cured,		fects, tools, &c., of settlers	
and fresh.....	cwt. 209 0 9	coming into the province,	
Coffee.....	cwt. 1,917 0 4	about.....	£6,000
Molasses.....	cwt. 1,128 1 13	Importations of specie...£104,645 16 8	

EXPORTS.

Articles, &c.	Quantity.	Articles, &c.	Quantity.
Flour.....	bbls. 194,856	Lard.....	kegs 283
Pork.....	bbls. 4,133	Starch.....	boxes 600
Beef.....	bbls. 80	White pine boards....	feet 1,680,000
Timothy seed.....	bbls. 176	Bricks.....	No. 1,030,000
Wheat.....	bush. 108,116	Sheep pelts.....	No. 10,750
Oats.....	bush. 3,000	Woolen cloths.....	yards 40,000
Peas.....	bush. 1,000	Blankets.....	pairs 130
Beef.....	trcs. 65	Furs and peltries, value a-	
Hams.....	tons 9	bout.....	£2,000
Horn tips and scraps...	tons 11	Fresh fish.....	£500
Ashes.....	casks 283	Total estimated value of ex-	
Butter.....	kegs 200	ports.....	£301,000

3.—IMPORTANCE OF STATISTICS.

From a lecture delivered in Grenada, and published in the Colonial Magazine, we introduce an important passage, corresponding with the views we have so frequently expressed.

“To the agriculturist, it is interesting to know what proportion the population bears to the number of acres in cultivation, and the production of the soil, so as to regulate his labor and economize his means—for labor is wealth. To the merchant, it is necessary to know the proportion of the population to the produce of the country, the imports and the exports, so as to ascertain the consumption and the average expenditure of each family, and thereby govern his enterprising speculations. To the physician, it is important to ascertain the proportion of the births to the deaths, and of each of these to the aggregate population, as well as the respective causes of death, and the effects of climate on diseases, so as to arrive at sound deductions respecting the nature of complaints peculiar to certain countries, and to certain ages, professions, and classes of the people; the general state of public health, and other important points connected with vital statistics. To the statesman, it is indispensable to know the number of the population—their wealth or poverty—their increase or decrease—the number of poor in comparison with the rich—the number of laborers, or the productive part, with the number of thinkers, or the unproductive part—the proportion of the sexes—the number of marriages—and the general state of public morals, so as to enact wise and just laws that will

not bear heavier on one part of the community than another, but such as tend to prevent vice and encourage virtue, and are calculated to promote the welfare and equitable government of the whole. To the philosopher, it is interesting to know the ratio of mortality in a country, and to trace its causes, to ascertain the number of marriages, the average produce of these marriages, and to investigate the various contingent circumstances which affect the reproduction of the species, the value of lives, and the doctrine of probabilities, and thus be enabled to calculate the epoch when any given population would double itself, and a thousand other matters highly important and interesting to an inquiring mind."

4.—GREAT LAKES OF NORTH AMERICA.

In our last number we had an article upon the trade of the Lakes and the immense navigation conducted upon them. We are now able to offer some additional interesting particulars, obtained from the valuable Colonial work of Mr. Simmonds, of London.

"Extending from east to west over nearly fifteen and a half degrees of longitude, they seem, regarding them upon the map, to rest like a crown of waters upon the head of the Union, their centre of gravity; the island of Macinac, balancing upon the meridian which separates Indiana and Ohio, equi-divides Kentucky and Tennessee, and passes between Georgia and Alabama, and East and West Florida, in the Gulf of Mexico. The difference in the latitude of the northern and southern extreme points of the Lakes is not far from eight and a half degrees. The estimated area of country draining into them is 400,000 square miles; the extent covered by the waters of the whole is 93,000 square miles, divided as follows: Ontario, 6,300; Erie, 9,600; St. Clair, 1,060; Huron, 20,400; Michigan, including the bay, 24,400; Superior, 32,000. The waters of the 'Father of Lakes' (Superior) are 568 feet above the level of the sea; which elevation is attained by unequal gradations, each lake rising above the previous one from Ontario to Superior. The surface of the waters of Ontario is 232 feet above the tide-water of the St. Lawrence; Erie rises 333 feet above Ontario; St. Clair 6 feet above Erie; Huron and Michigan are 13 feet higher than St. Clair; and Superior rises 44 feet above those.

"The St. Clair is by far the shallowest of any of the lakes, the average depth being about 20 feet; Erie averages in depth about 85 feet; Ontario 500; Superior 900; Huron and Michigan 1,000, as nearly as can be arrived at. The deepest soundings are found in Lake Huron: off Saginaw bay, we are told, leads have sunk 1,800 feet, or 1,200 feet below the level of the Atlantic ocean, without reaching the bottom.

"Great difference is observable in the transparency and purity of the waters of the several lakes. Those of Ontario, Erie, and the southern part of Michigan have no peculiar excellence—while those of the northern part of Lake Michigan and Lake Huron surpass in clearness and flavor any waters of which we have ever drunk, though a still greater purity and a higher relish is said, by those who have visited that lake, to distinguish the waters of Superior.

"So completely transparent are the waters of Huron, that the rays of the sun are said to pass through them as through the cloudless atmosphere, without meeting with solid matter in suspension to elicit their heat. Thus Dr. Drake accounts for the fact, which he himself ascertained by experiment, that the water on the surface, and that 200 feet below the same spot, had precisely the same temperature, 56 degrees.

"Through the Welland Canal the navigation of the Lakes is uninterrupted for the distance of 844 miles from east to west; the distance north and south is, of course, various, ranging from 347 miles as the extreme distance. The country to which these waters are the great highway of transport has often been the theme of high-wrought eulogium, for the variety and richness of its soil, and the extent of its resources. The justness of these praises, as well as the extent to which this fertility has been subjected to the hand of culture, and the rapidity with which these resources are being developed, under the life-bringing touch of the enterprise which peculiarly characterizes its inhabitants, is gathered from the bare glance at the fact, that the commerce of the four great Lakes, including all capital afloat, during the year 1843, was estimated by the Topographical Bureau at 65,000,000 dollars. The total amount expended by the General Government of the United States on these Lakes for the improvement necessary to protect and convenience this commerce is stated by Mr. Whittlesey, of Ohio, at \$2,100,000.

"When the projected ship-canal around the Falls of Ste. Marie shall be completed, the wide expanse of Lake Superior will be added to the present extent of the Lake navigation, allowing the adventurous commercialist to crowd some 175 miles still farther north, and several hundreds farther west. The length of the road proposed to be cut by this canal is said to be but *three-fourths of a mile*, and the whole expense of the improvement is estimated, if we rightly remember, at \$30,000 dollars. By this comparatively small outlay, access is at once obtained to the whole country tributary to Lake Superior—a tract so rich in timber and mineral wealth, that it has not been unaptly termed 'the Denmark of America.'

"The following is a most accurate statement of the length, width, and depth of the respective Lakes, which cannot fail to be interesting to our readers :

THE GREAT LAKES.		
Greatest length.	Greatest breadth.	Aver. depth.
Miles.	Miles.	Feet.
Ontario.....	180.....	40.....500
Erie.....	270.....	80.....200
Huron.....	250.....	100.....900
Superior.....	350.....	150.....900

Of these, the surface of Lake Superior has been calculated to be 1,048 feet above the level of the high tide of the sea; Lake Huron is 570 feet above ditto; Lake Erie is 330 feet above Lake Ontario, and 566 above the Hudson at Albany. The Ontario is 218 feet above the St. Lawrence and Three Rivers."

There are several important canals connected with the Lakes, which may be briefly noticed. Erie canal, 363 miles, in the State of New York; Welland canal, uniting Erie and Ontario, and avoiding the Falls of Niagara, 42 miles; Rideau canal, 135 miles; Greenville canal; Lachine canal, from Montreal to Upper Lachine.

In relation to the Falls of Niagara and the river St. Lawrence, the following from the same source is valuable:

FALLS OF NIAGARA.	
Extent of the Horse-shoe Falls, on the British side.....	2,900 feet.
Breadth of Goat Island, between it and the American Falls.....	980 "
American Falls in breadth.....	1,140 "
The whole extent, or full three-quarters of a mile.....	4,220 "
Height of the Horse-shoe Falls.....	150 "
Height of the American Falls.....	160 "
Extent of the cave beneath the Horse-shoe Falls, from the outside of the Termination Rock.....	153 "
Height of the cave is estimated by Capt. Hall at.....	100 "
The estimated quantity of water discharged over the Falls is calculated at 48,524,000 cubic feet, or 113,510,000 gallons, per minute.	
Depth of the river above the Falls, as near as can be approached, about	900 "
Breadth of the river at the ferry.....	1,170 "

THE ST. LAWRENCE.	
Lake Superior being the real head of this river, the distance from Cape Chat, which is 100 miles above Cape Rosier, where its mouth may in reality be deemed to commence, to the head of that Lake, is calculated to be no less than.....	2,120 miles.
Breadth of the mouth of the river at Cape Rosier.....	80 "
Breadth at Kamouraska, where its waters are perfectly fresh, and its average depth twelve fathoms.....	90 "

5.—COMMERCE OF CUBA—SUGAR, COFFEE.

For the following we are indebted to Simmonds' Colonial Magazine:

	SUGAR.	COFFEE.
	Arrobas.*	Arrobas.
1826 to 1830.....	6,508,138.....	1,718,865
1830 to 1835.....	7,893,567.....	1,995,832
1835 to 1840.....	10,166,555.....	1,877,646

For the five years ending with 1845 we have only the exports before us from a portion of the island.

We append a list of the export of boxes of sugar from Havana and Matanzas during the years 1830 to 1846, which will show the progress of cultivation in that part of the island. In the year 1845 a great falling off appears; this was owing to the destructive hurricane which took place in October, 1844. The estimates of the ensuing crop, which is just beginning to reach Europe, are from 800,000 to 900,000 boxes. The Cuba sugar-boxes contain about 400 lbs. English weight. Up to the end of February there had been shipped from Havana 63,199 boxes, and from Matanzas 34,204, against 28,736 and 14,552 at the same period in 1846.

EXPORTATION OF SUGAR FROM THE ISLAND OF CUBA FROM 1830 TO 1846.

	Havana.	Matanzas.	Total.
1830.....	303,341.....	141,138.....	444,479
1831.....	276,329.....	126,560.....	402,889
1832.....	298,801.....	142,886.....	441,687
1833.....	284,955.....	144,030.....	428,982
1834.....	283,164.....	175,582.....	458,746
1835.....	306,007.....	185,553.....	491,560
1836.....	310,208.....	189,945.....	500,153
1837.....	316,834.....	191,117.....	507,951
1838.....	373,920.....	236,592½.....	610,512½
1839.....	329,762½.....	194,043.....	523,805½
1840.....	444,324.....	263,215.....	707,539
1841.....	434,464.....	261,967.....	696,431
1842.....	415,465.....	260,766.....	676,231
1843.....	429,003½.....	270,692.....	699,695½
1844.....	528,778½.....	299,189.....	827,967½
1845.....	256,556½.....	99,436.....	355,992½
1846.....	505,983.....	289,112.....	795,095

The greater part of the sugars produced in the northern part of the island is "clayed," but of late more attention has been turned also to Muscovados, and a larger quantity of that description than heretofore is likely to find its way to this country for the use of refiners and grocers. We have no particulars of the production of the south of the island, at St. Jago, Cienfuegos, and Trinidad, but are informed on good authority that the quantity grown in that part is at present not under 150,000 to 200,000 boxes, clayed and Muscovados.

The exports of coffee for the whole island were, in 1840, 2,197,771 arrobas; in 1841, 1,260,920½ arrobas. We have not the complete details for subsequent years, but the exports in the past two years were—

	1845. Arrobas.	1846. Arrobas.
From Havana.....	160,668½.....	236,900
From Matanzas.....	10,325.....	21,817
	<u>170,993½</u>	<u>258,717</u>

MISCELLANIES.

I.—SLAVE TRADE ON COAST OF AFRICA, SIERRA LEONE.

THE European settlements on the west coast of Africa, are, to the northward, Goree and Senegal, owned by the French; Bessaô and Cacheco, by the Portuguese; Gambia, Bulama, and Sierra Leone, by the English, with Cape Coast, Prince's island, and Fernando Po, to the south.

The French do not export slaves across the Atlantic, although they tenaciously maintain domestic slavery in their settlements. On the contrary, the Portuguese in Bessaô, Cacheco, and Cape Verde, carry on the traffic to a great extent under the flag of Brazil; as does Spain, also, preferring the Brazilian flag, which does not forfeit the vessel, and consequently remove it from the trade.

Pedro Blanco, Martinez of Gallinas, Felipe de Souza, called by the natives Char Char, of Lagos and Whydah. These are justly considered the most extensive dealers on the west coast, and their adventures frequently come under the surveillance of the Mixed Courts in Sierra Leone.

To the southward of Bessaó is the Nunez, situate on the river of the same name, and, under the dominion of the native chief, the Landewas, the resort of both French and English, whence are procured gold, ivory, wax, hides, coffee, and other productions; but in consequence of the frequent feuds among the chiefs, and incursions to the settlement for the object of plunder, the merchants have placed themselves under the protection of the British cruisers, which visit periodically. Rio Pongas, in the neighborhood of the Nunez, is almost exclusively engaged in the slave trade; consequently, legitimate commerce is little known there, nor is it the resort of any creditable merchant of the Colony, as all mercantile operations there are of a very questionable character. From this place to Sierra Leone are the Isles de Los, Bogga country, from whence are procured hides, wax, palm oil, small quantities of gold, ground nuts, mats, gum, ivory, &c.

We now come to the British Colony of Sierra Leone, which merits particular attention from the solicitude with which the Government has watched over it ever since its establishment. This Colony was founded by the English in 1786, under the direction of Captain Tomson, of the Navy, who took with him 400 distressed negroes from London, with about 60 whites, to prepare and cultivate that portion of the country which was ceded by King Tom for the purpose of Colonization. This system, however, having soon failed, Messrs. Wilberforce, Thornton, and other intelligent persons, were induced to undertake the object upon a different system, justly reasoning that little benefit could be effected from the mere abolition of the slave trade, unless the natives were instructed in religion and the arts of civilization, which alone can render a people free.

Instances have occurred of slave dealing in the Colony by *liberated Africans* themselves, as in the case of the notorious Gibson, sentenced to five years in a chain gang, but who, through the cognizance of the driver, escaped to the Mandingo shore, leaving the driver to serve the sentence in his place. Other cases of Mahomedans, Mandingoes, and Foulahs or Timannees, residents in the Colony, are established, who have inveigled liberated African boys or children out of the Colony and sold them in the interior. Cooper Thompson reports from Teembo that he there found a family so disposed of, and had resided for many years, but was ultimately liberated by King Alimamme Foodi Bocarrí.

Cummings, a liberated African, on more occasions than one, has had bills presented to the grand jury against him for slave dealing, also a Mandingo, named Dowdah; but, from the manner in which the evidences are trained by the people in the interior, conviction is difficult, yet many have been punished severely.

Aiding and abetting in the traffic is more than suspected.

The purchasing of condemned slave vessels is a source of no inconsiderable profit, and of moment to the British merchant of the Colony, sold as they are at a very low rate by the commissioner of appraisement and sale to the courts, and then re-sold to the Brazilian or Spaniard for double or treble the amount. In this way one of the most extensive merchants in the Colony finds it not the worst part of mercantile speculations.

It is scarcely credible that women should have connected themselves with this speculation, as buyers, sellers, and kidnappers, among whom, one of the most notorious, was the infamously-famed Donna Maria de Cruz, daughter of the dreadful Gomez, Governor of Prince's island. This disgrace to her sex, among other vessels captured by the British, had the "Maria Pequena," seized by the "Victor," sloop. The burthen of this slaver was but five tons, yet, besides her crew, provisions, water, and other stores, she had taken on board twenty-six slaves, who were found stowed away, but with less care than so many fitches of bacon, between the water-casks and the deck, a space of only *eighteen inches* in height. Six of the creatures were dead, and the rest in a state of starvation.

2.—HUNTERS AND TRAPPERS OF THE WEST.

THE FUR TRADE.

At the anniversary celebration of the founding of St. Louis, Missouri, in February last, much was said in reference to the progress of the western country, but nothing more interesting than the remarks of Thomas Allen, Esq. We have allotted

LACLEDE had a monopoly of the trade of the Missouri river, and of the country west of the Mississippi, as high as the St. Peters. Their furs were generally taken to Canada, whence they were shipped to European ports. Four years were consumed in getting returns of European goods, which also came through Canada. The annual cost of those goods brought here for the fur trade about this period, is stated to have been about \$35,000—on which there was a freight charge of 100 per cent. (no steamboats then), but the profits, nevertheless, are said to have equaled 300 per cent. The trade of the Missouri river was more valuable than that of all the others united; and the business increased so, that, during the last ten or fifteen years of the last century, the average value of the goods annually sent up that river, in exchange for furs, amounted to something over \$61,000.

It was impossible, owing to the great extent of canoe navigation from Quebec, in Canada, for example, to points 1,000 miles up the Missouri, for single individuals to prosecute the trade. Hence the necessity of companies, by which the trade was always conducted.

These companies subdivided their labors among agents or clerks, canoe men or voyageurs, coureurs des bois, or wood-rangers, and hunters and trappers. The goods were sent up the river in Mackinaw boats, carrying 1,500 lbs. to three tons, but bark canoes were employed on the smaller streams and at portages.

But Mr. A. said he saw and felt it was impossible to do justice to the subject on such an occasion, or to compress into a brief and hurried speech, anything more than a simple mention of the more prominent transactions.

About the year 1792, several trading voyages were made up the Missouri by Frenchmen and Spaniards of this city, connected with a company formed here by a Scotchman of the name of Todd, under the protection of the Spanish government, the object of which was to monopolize the whole trade of the Missouri. A journal of one of these voyages, made by JOHN BAPTISTE TRUDEAU, our first schoolmaster, has been preserved in the Department of State at Washington. It appears that the petitions of many of these people to the government for grants of land, were based upon the ground of services rendered in these expeditions.

The average annual value of the furs collected here for fifteen successive years ending in 1804, is stated to have been \$203,750. The number of deer skins was 158,000; beaver, 36,900 pounds; otters, 8,000; bear, 5,100; and Buffalo, only 650. A very different state of things from the present, when the beaver are nearly exhausted, and the most important article in the trade are buffalo robes.

In 1802, James Pursley, an American, with two companions, left St. Louis on a hunting expedition to the sources of the Osage. A most unpropitious and versatile fortune led him, after three years of adventure and hardship, and contrary to all his wishes and intentions, afar off into Santa Fe. Having lost all his outfit, and been repeatedly plundered, he had but a solitary gun left, and the Mexicans were near hanging him for attempting to make a little gunpowder to charge it! He mentioned this case, not only as illustrative of the vicissitudes of the hunting and trapping life, but because he, a trapper, James Pursley, had the honor of being probably the first American who traversed the great plains between the United States and New Mexico.

When the government of the U. S. sent Lewis and Clark on their expedition in 1804, and Maj. Pike to explore the sources of the Mississippi, the Arkansas, the Kansas, and the Platte rivers, our hunters formed their companies, had preceded them, and were then to be found on all the rivers east of the Rocky mountains. Loisel, outfitted by Mr. Auguste Chouteau, of this city, had a considerable fort and trading establishment on Cedar island, a little above the Big Bend of the Missouri. They were dwelling also, among the Ottos and the Missouris, and were of indispensable service to those travelers.

In 1806, the Missouri Fur Company was formed in this city, consisting principally of Pierre Chouteau, Sr. (the venerable gentleman before him), Manuel Lisa, Wm. Clark, Sylvester Labadie, Pierre Menard, and Auguste P. Chouteau, with a capital of \$40,000. They sent an expedition under Major A. Henry to the Yellowstone, and established a number of trading-posts upon the Upper Missouri, and one beyond the Rocky Mountains, on Lewis river, and also on the southern branch of the Columbia, being the first post established upon the waters of the great river of the Oregon territory. Our hunters had the honor of it. Mr. A. would pass over the magnificent enterprise of Mr. Astor, of 1809, which terminated in 1812, and with which all were familiar.

The Missouri Fur Company was dissolved in 1812, and the same year most of the former members of the company in this city established independent busi-

with the design of furnishing outfits to private adventurers in the trade of the Missouri. Of such a character were the houses of Berthold & Chouteau, B. Pratte, J. P. Cabanne, and M. Lisa. But few, if any, American citizens prosecuted the trade west of the Rocky mountains from 1813 to 1823.

In 1819, Mr. John Jacob Astor, established a branch of his house in this city, under the charge of Mr. Samuel Abbott, and it was called the Western Department of the American Fur Company. This Company embraced the trade of all the northern and western parts of the United States, east of the Rocky mountains. The monument of their success, was the inordinate wealth of Mr. Astor.

About this period, a new company was formed here, or rather the old Missouri Fur Company was revived with new partners. They were chiefly Maj. Joshua Pilcher, M. Lisa, Thos. Hempstead, and Capt. Perkins. A hunting and trapping party of this company, under Messrs. Jones and Immel, were attacked by the Blackfeet Indians on the Yellowstone, in 1823, and several of the party, including the leaders, were killed, four wounded, and the party robbed. The company was unfortunate, and continued but a few years.

Then came, in 1823, the high enterprise of General Wm. H. Ashley, of this city re-establishing commercial intercourse with the countries west of the Rocky mountains. He lost fourteen of his men, and had ten wounded in a fight with the Aricara Indians at the first start. But persevering, Gen. A. and his men ascended to the sources of the Sweetwater, and discovered the Southern Pass of the mountains, since the well-known great highway of the nation to Oregon, and discovered also the Green river, beyond, running into the Colorado of California. Here he was very successful and brought back to St. Louis a large stock of furs, which he sold for unusually high prices. He made another expedition in 1825, and ventured as far as the great Utah Lake, and near that discovered another and a smaller, to which he gave his own name, and there established a fort. Two years after a six pound cannon was drawn from Missouri to this fort, 1,200 miles, and in 1828, many loaded wagons performed the same journey. Between the years 1824 and 1827, Gen. Ashley's men sent to this city furs of the value of over \$180,000. Having thus acquired a competency, Gen. Ashley sold out all his interests and establishments to the "Rocky Mountain Fur Company," then formed here, in which Messrs. J. S. Smith, David E. Jackson, and Wm. L. Sublette, were principals, and our friend Mr. Robert Campbell, there, on his right, was then Clerk—now President of the Bank, Aid-de-Camp of the Governor, and the incumbent of, he didn't know how many other posts of honor, of which, he was sure, no gentleman was more worthy. These energetic men carried on for several years an extensive and profitable business, during which they traversed every part of the country about the southern branches of the Columbia, and ransacked nearly the whole of California. Mr. Smith was killed by the Camanche Indians, on the Cimaron, in 1831. It was a remarkable fact that, in the period of five years from 1825 to 1830, of the number of our men employed in the trade, two-fifths were killed by the Indians, or destroyed by accidents and dangers of the country.

The individual traders of the city united in 1825, in the firm of B. Pratte & Co., and continued thus in the business for six years.

The year 1833 was fruitful in events. Messrs. Sublette & Campbell went to the mountains, Mr. Wyeth established Fort Hall, on the Lewis river, and disseminated much useful information in regard to Oregon; Capt. Bonneville's expedition took place; Fort William was established on the Arkansas by the Messrs. Bent, of this city; a Missouri trapper of the name of Pattie, published an account of his rambles in the northern and western provinces of Mexico, and the American Fur Company sent the first steamboat to the Yellowstone.

Mr. Astor retired from business in 1834, and sold his western department to Messrs. B. Pratte, P. Chouteau, Jr., and Cabanne, of this city, who conducted the business until the year 1839, when the organization took place which now exists. Nearly the entire Fur trade of the West is now conducted by the house of P. Chouteau, Jr., & Co., and the company of the Messrs. Bent and St. Vrain.

The annual value of the fur trade of this city, for the last forty years, had been probably between two hundred and three hundred thousand dollars, and had thus been not only profitable to our citizens, but a source of wealth to our city and our State.

Such, said Mr. A., had been some of the services of our hunters and trappers—they had cleared the way for us, their fortunate successors, and laid the founda-

however, were going the way of the animals they have exterminated—were disappearing in the direction of the setting sun, expending their remaining energies and final services, in lighting the way and guiding the footsteps of the emigrant and the settler, to the home they are seeking in Oregon and California. Many of them there were, whose unwritten biographies were crowded with "hair breadth 'scapes and moving accidents by flood and field," stranger and more romantic than fiction; and he only regretted that he had not opportunity there to bestow upon them that measure of honor and justice to which they were so highly entitled.

3.—IMPRESSIONS OF NEW ORLEANS BY A FOREIGNER.

Every sort of opinion we have heard ventured by those across the water, in relation to our country. We suffer ourselves, sometimes, to be provoked; we generally smile; we are always interested. The latest notions of us we have seen are those of Charles Hooton, Esq., whose *St. Louis Isle, or Texiana*, has been published in London. As this writer is characterized in general by much fairness, and remained several months in New Orleans, we will give a few of his views of that city.

DISTINCTIVE FEATURES OF THE CITY.

Perhaps it is owing to the prospective horrors of yellow fever, the almost instinctive abhorrence of slavery, or the dread of those innumerable annoyances to which a hot climate subjects the Northern visitor, that we owe so little in the way of information to the majority of our tourists in America respecting that great Southern metropolis of the States, New Orleans. Even when visited, it appears to have been much under the same feeling as one might undertake a morning call upon some unhappy patient in the blue stage of the cholera; the predominant tendency being, to get away again as quickly as possible,* and without allowing time either for the due exercise of the judgment, or the investigation of such matters as a laudable curiosity naturally leads us to desire acquaintance with—a matter much to be regretted in itself, since the remarkably distinctive features which characterize American society in this broiling region, as compared with the strong English character of the Northern citizens, deserve much more attention than, as far as I am aware, they have hitherto received. The place itself, too, is something of a curiosity in the way of a city, and, together with its inhabitants, amply sufficient, be it hoped, to afford material for an amusing (and perhaps instructive) half-hour's reading.

APPROACHES TO THE CITY.

All the way up to "The Crescent City," a vast forest extends on either side, as far as the eye can reach; opened here and there by the axe of the settler, and enlivened by happy-looking rustic homesteads, or the more extensive village-like establishments of the planter. Though past the middle of December when I arrived, the negroes were at work cutting the sugar-cane—that tall and beautiful plant, whose height made themselves and their cattle appear dwindled to the size of Shetland ponies. About the houses, rows of orange trees, covered with their glittering fruit, gave brilliancy to the scene; though some regret was felt that those monstrous alligators, which abound in this river, and afford amusement to the voyager during the hotter months, had betaken themselves to winter quarters so universally, that not a solitary one put up his nose and his formidable threatening eye above water.

APPEARANCE OF NEW ORLEANS.†

Viewed from the river below, New Orleans does not appear materially inferior to Liverpool. The appearance, however, is nearer than the reality by far; since the absence of basins and docks causes all the vessels in port to lie out alongside, and thus the commercial marine is displayed to the fullest advantage. Neither is the city so large by three-fourths, or possessed of such excellent buildings, if we except the old French cathedral, which is a handsome pile, directly facing the river.‡ In one feature, however, it is far superior to Liverpool, and that a very

* On the contrary, Mr. Hooton, we never knew a traveler who did not overstay his allotted time in New Orleans, and regard a departure with pain.

† In our back volumes we have a great variety of sketches of the city. The number for March, 1847, contained a beautiful engraving of it. The number for June, same year, embraces an engraved view of Balize at the mouth of the river.

‡ Quere—"handsome"—E.

important one: I mean in the absence of that visible wretchedness, poverty, and degradation, to be everywhere seen mingled with the wealth and splendor of its great commercial prototype. Indeed, with respect to the condition of the laboring classes, or those classes whom we see most generally crowding the streets and roads—comparing one with the other, an American from the South, on setting his foot in England, could scarcely help but feel that he had walked into the doorway of the great workhouse of the world. Nor could readily be named two local places where the contrast in this respect is more curiously visible than in Liverpool and in New Orleans. Its charities, both public and private—each equally unostentatious—are extensive and unceasing; since the unbroken demand created by the continual influx of British paupers, chiefly Irish, who rush, totally unprepared, into the extremes of a Southern climate, will not allow a very expanded benevolence to rest one moment from its cares.

Orleans is built in the midst of those extensive cypress swamps which line not only the lower part of the Mississippi, but extend far and wide over various parts of the coasts and river borders in that neighborhood. Its site is, therefore, chiefly "made ground;" and as it extends round the elbow formed by a bend in the river, nearly in the form of a half-moon, it has received the title of "The Crescent City." The streets, composed of curious heavy-roofed old French houses, are laid out as nearly as possible at right angles, and run the whole length and depth of the city under one name; thus avoiding the common inconvenience in London of having what is evidently a single street, dubbed in as many places by half-a-dozen different titles.* These streets are crossed at intervals with ropes attached to the tops of opposite high poles, and carry a lamp swinging in the middle; a primitive method of lighting by night, but one at once picturesque and novel to the eye of a stranger.†

Notwithstanding all this, the drainage obtained is so very slight that during heavy rain the streets are flooded nearly across, and an individual passing along may be said to wade as well as walk; yet, a few hours after the cessation of rain suffice to set everything high and dry again.‡

When the river is swollen, the city lies below its level. To prevent inundation, a high bank termed the Levee is raised, extending up and down far beyond the precincts of the city itself. To this bank the natural depositions of the river are in constant course of being added; and as a vast portion of soil is continually brought by the current from the opposite side of the river and deposited here, the crescent form becomes lost, and in the course of years must disappear altogether.

THE SLAVES.

The slave population generally exhibits a marvelously mixed variety of hues, from very dark through all conceivable transitions to a white almost as pure as that of a European, though in the latter cases the modified negro features are still preserved in much of their primitive integrity. As the females advance into middle age, they frequently become so remarkably stout, that, in comparison, the proverbial and ideal alderman of this country thins off into something like a lath. The whole mass quivers as it walks along, and its general motion not unaptly conveys the idea of a heavy rocking carriage on a railroad. Almost immediately after my arrival in the city, one of these sombre mountains of flesh met me in the street, and in passing nearly swept me—if not exactly off the face of the earth, at least off the breadth of a broad causeway. During the space of about four months afterward, she somehow haunted me in all my walks—of course not intentionally, but Providence so ordered it. Go wherever I would, on business or pleasure, there she was. It really appeared at last to be her especial business to perambulate the streets in search of me. Never did I wish to be a slave-owner either before that time or since, but *then* the desire became irresistible. But it was wholly confined to that one elephantine female; for had she been mine, I would have parted with her for a penny to any man who would have carried her to Kentucky and kept her there. At length she happily disappeared all of a sudden; whether she died, was confined in a hogshead, and buried in the gap of an earthquake, or still lived

* The writer grossly mistakes—Chartres st. changes to Condé, St. Charles to Royal, Camp to Chartres, &c., &c.—Ed.

† This will apply chiefly to the suburbs.—Ed.

‡ True to the letter. We have some interesting lakes and inland seas at these times in New Orleans.—Ed.

to occupy a range of building to herself, I never knew; my consolation lay in the simple fact that she was gone.

FLAT-BOAT COMMERCE.

A flat-boat is nothing more than a quadrangular floating box—a wooden dripping tin—a capacious washing tub, composed of rough sawn planks, and provided with a rude kind of cabin, made sufficiently water-tight to enable it to float down the current to its destination, and no more. Numbers of this description of craft are moored so closely together by the river-side, that one may run along the floor formed by their flat-covered tops with equal facility as upon the deck of a ship.

The owners of the flat-boats no sooner arrive, than they open their floating shops for the sale of their respective cargoes; and as their prices average little more than one-half of those demanded for the very same articles when retailed in the stores of the city, there are always numbers of customers thronging the levee, and keeping the region of the flat-boats in a state of remarkable liveliness.

MISSISSIPPI STEAMERS—THE LEVEE.

Those prodigious buildings, the cotton steamers, also constitute a remarkable feature upon the Mississippi. The English reader cannot possibly form a more correct idea of their appearance at a distance than by imagining to himself a "factory" three or four stories high, placed upon a rather ornamental raft, and sent to float upon the water. On a nearer approach and closer inspection, however, they are found to be splendidly got up, and provided with accommodation (civility and gentlemanly conduct included) to which the traveler by any other than first-class British vessels is too often a stranger.

During that period of the year in which the produce of the West is principally brought to Orleans, the banks of the river are literally covered with thousands of bales of cotton, barrels of molasses, hogsheads of sugar, and cases of various other articles, which remain wholly or in part thus exposed during the space of some weeks. The merchants and agents to whom these goods are consigned, provide private armed watchmen to protect them during the night against the negroes—a race of people who appear to inherit a peculiar liking for sugar and treacle in particular.

NEW ORLEANS MARKETS.

The "French market" is the greatest one; and taking into consideration both the amazing variety of produce, and the equally great variety of human character and dress there assembled, it presents perhaps as fine and curious a picture as, in the same way, can be found in any part of the world. Tropical fruits, of all kinds, from the neighboring West Indian islands—parrots that run at large about the stalls, and talk and scream at will—various beautifully colored birds in cages—gigantic herons—wild ducks and geese of all sizes and colors—pigeons, squirrels, owls, and fish of indescribable varieties, together with cray-fish creeping about alive in the baskets, form some portion of the merchandise most unusual to the Northern stranger. The birds are killed by the hunters in the forest swamps and pools—the fish taken chiefly in Lake Pontchartrain, which lies about three miles behind the city and communicates with the Mexican Gulf. The finny prey is brought direct from the fishing-boats by railway, in the space of six or seven minutes; so that it is a usual thing to see them (the buffalo-fish especially) still gasping for the water of life when the purchaser carries them away. All this will be found in one part; in another, all descriptions of culinary vegetables and fruits that the season can produce; and, as may be supposed in such a climate, they are not at any time wanting either in variety or abundance. In a third avenue will be found newly-baked bread, in most tempting variety of shape, together with confectionery and sweatmeats of every sort to which French taste in this important petty art can give rise.

In a separate building, the visitor wanders through a little province of butcher's meat, slaughtered in the cleanest style imaginable, and compared to which the shambles of London positively resemble a slaughter-house. Heads and offal are never seen. Here occasionally the eye may alight upon the carcass of a fine bear, ticketed probably "St. Charles' Hotel," by way of hint, one may presume, that if the lovers of bear's meat want a dinner upon that splendid viand, they now know where to find it.

4.—THE WILMOT PROVISIO'S EXCLUSION.

The South has, with just indignation, and with one voice, condemned the nefarious scheme in its very bud, which threatens in all future time to reduce her to a subordinate position in the Union; without any other rights than those that may be graciously conceded by a sovereign and hostile majority upon the floor of Congress; nothing, perhaps, for half a century has produced deeper excitement among us, and we look with the greatest anxiety to the meeting of Congress this month to determine the results. Everything depends upon them. If abolition and disorganization are but narrow sects at the North, of the ignorant and the deluded, let the members of Congress from this section speak out. We must and will insist upon knowing who are our friends; or rather—for we ask not friendship—who have respect for our rights!

It behoves the South to be firm in this crisis, and preserve its temper in every respect. From a want of discrimination we have often offended good and firm friends in the midst of abolition regions. There are thousands and hundreds of thousands of leading citizens in every part of the North and East, who deprecate all interference with us and our institutions, and who incur the hostility of their neighbors by an advocacy of our rights. Let us respect these men, and remember them always when we dispute. In our summer excursions at the North it surprised and delighted us to find so many. In fact, what is a little remarkable, we scarcely found a man willing to admit, in conversation with us, that he was an abolitionist in every sense of the term. There was always some one worse than himself. In fact, we often found that "abolitionist" was, in many sections, a kind of taint. We know, indeed, that the Democratic Convention of New York have rejected the Wilmot Proviso, and this is, without doubt, the sentiment of that State.

Let us, as of some importance for reference, present the celebrated proviso, and the resolutions, &c., to which it has given rise. As other legislatures meet we may expect louder and louder blasts.

WILMOT PROVISIO.

That there shall be neither slavery nor involuntary servitude in any territory on the continent of America, which shall hereafter be acquired by or annexed to the United States, by virtue of this appropriation, or in any other matter whatsoever, except for crimes, whereof the party shall have been duly convicted. Provided always, That any person escaping into such territory, from whom labor or service is lawfully claimed in any one of the United States, such fugitive may be lawfully reclaimed, and carried out of such territory to the person claiming his or her labor or service.

*MR. CALHOUN'S RESOLUTIONS IN SENATE.

Resolved, That the territories of the United States belong to the several States composing this Union, and are held by them as their joint and common property.

Resolved, That Congress, as the joint agent and representative of the States of this Union, has no right to make any law, or do any act whatever, that shall directly, or by its effects, make any discrimination between the States of this Union, by which any of them shall be deprived of its full and equal right in any territory of the United States, acquired or to be acquired.

Resolved, That the enactment of any law which should directly, or by its effects, deprive the citizens of any of the States of this Union from emigrating with their property into any of the territories of the United States, will make such discrimination, and would, therefore, be a violation of the Constitution, and the rights of the States from which such citizens emigrated, and in derogation of that perfect equality which belongs to them as members of this Union, and would tend directly to subvert the Union itself.

Resolved, That, as a fundamental principle in our political creed, a people in forming a Constitution have the unconditional right to form and adopt the government which they may think best calculated to secure their liberty, prosperity, and happiness, and that in conformity thereto, no other condition is imposed by the Federal Constitution on a State in order to be admitted into the Union, except that its Constitution shall be strictly republican: and that the imposition of any other by Congress would not only be in violation of the Constitution, but in direct conflict with the principle on which our political system rests.

In January, 1847, The State of Vermont approved and adopted the Wilmot Pro-

viso; in February, the State of New York; in the same month, Pennsylvania, Ohio, New Jersey, and New Hampshire; Michigan claims the extension of the ordinance, prohibiting slavery north-west of the Ohio; in August, 1847, Maine adopted similar resolutions; Massachusetts, March 1.

Resolved unanimously, That the Legislature of Massachusetts views the existence of human slavery within the limits of the United States as a great calamity, and immense moral and political evil, which ought to be abolished as soon as that end can be properly and constitutionally attained; and that its extension should be uniformly and earnestly opposed by all good and patriotic men throughout the Union.

RESOLUTIONS OF THE STATE OF VIRGINIA.

Resolved, That the Government of the United States has no control, directly or indirectly, mediately or immediately, over the Institution of Slavery, and that in taking any such control it transcends the limits of its legitimate functions by destroying the internal organization of the sovereignties which formed it.

Resolved, That under no circumstances will this body recognize as binding any enactment of the Federal Government, which has for its object the prohibition of Slavery in any Territory to be acquired either by conquest or treaty, south of the line of the Missouri compromise, holding it to be the natural and independent right of each citizen of each and every State of the confederacy, to reside with his property, of whatever description, in any Territory which may be acquired by the arms of the United States or yielded by treaty with any foreign power.

Resolved, That this Assembly holds it to be the duty of every man in every section of this confederacy, if the Union is dear to him, to oppose the passage of any law, for whatever purpose, by which Territory to be acquired may be subject to such a restriction.

Resolved, That the passage of the Wilmot Proviso by the House of Representatives of the United States makes it the duty of every slaveholding State and the citizens thereof, as they value their dearest privileges, their independence and their rights of property, to take firm, united, and concerted action in this emergency.

5. COTTON BALED WITH IRON HOOPS.

BURTAU, LOUNDES CO., ALA.

J. D. B. DE BOW, Esq.,

The subjoined letter, written, I have no doubt, in a spirit of perfect candor, and intended fairly and in good faith by the writer, to present a true statement of the relative advantages of rope and iron hoops in the packing of cotton, nevertheless contains objections to the use of the latter article, which I conceive so untenable, that I send the letter to you for publication; hoping it may arrest the attention of R. Abbey, Esq., of Mississippi, or some one else practically acquainted with the subject, and elicit a reply.

As they are the objections not of the writer of the letter, but of that entire community of cotton sellers and buyers of Mobile, who control the preparation for market of so large a portion of the Southern crop, I hope Mr. Abbey, whose valuable article in your January number, contains so many good reasons for preferring the hoop iron, will not think them undeserving a reply. With several newly invented, and, as I believe, *improved* cotton presses, just coming into use, we can certainly pack our bales within a square of 23 inches, and if we can persuade our mercantile friends in Mobile, that there is no good reason why bales thus packed, and kept in their square form by the unelastic iron hoop, should be "*un-merchable*"—we can certainly avoid the onerous tax of repacking them in Mobile—but as long as we use the hemp rope, which by stretching, allows our bales to lose their compact square shape, and to become enlarged and flattened, so as not to pack close on shipboard, we must submit to the tax of repacking.

AN ALABAMA SUBSCRIBER.

MOBILE, SEPT. 8, 1847.

DEAR SIR:

Your favor of 29th ult., is before us, and contents have had our attention. Cotton compressed is only reduced in *depth*, and the average is about one-third less than the bale before being compressed. A large light bale will be reduced more than a smaller one of the same weight. The presses run them down to nearly

half the depth; but when the ropes are tied and the bale turned out, it expands, so that it is reduced by compressing about one-third in depth—the length and breadth being the same as before compressing.

A few years ago, a lot of cotton came to this port with iron hoops, but it was pronounced unmerchantable, because in compressing the hoops had to be taken off and ropes substituted. The planter discontinued the use of hoops, and none have since been received here put up with them. All cotton is pronounced unmerchantable that has other than good grass or hemp ropes on it.

Could you even put up your cotton in the size of compressed bales, we think it would be best to use hemp ropes. In loading a ship, the cotton is driven by means of jack-screws so tight that iron hoops would break—where rope would only be loosened and removed a little, and when the cotton is turned out, the expansion immediately fastens the ropes again—even though cotton is compressed as well as it can be done, in stowing the ships it is often driven so hard by means of jack-screws that ropes are loosened, and shippers say that the iron hoops would break.

We can purchase the hoop iron as follows:—at 7 cts. per lb.

Hoop Iron $\frac{1}{4}$ guage 20, say 7 ft. 4 in. weighs 12 oz.

“ $\frac{1}{2}$ “ 20, “ 7 ft. 4 in. “ 14 oz.

“ $\frac{3}{4}$ “ 20, “ 7 ft. 4 in. “ 1 lb.

Rivets to suit, say 2 lb. iron rivets, can be bought at 75 cts. per thousand.

We have stated all that we can learn about this matter, and we think the use of iron hoops instead of ropes is not viewed in a favorable light by dealers, shippers, &c., of cotton.

You will find in the January number of De Bow's Commercial Review, published in New Orleans, an interesting and well written article on the mode of putting up cotton in the best manner for market, to which we beg to refer you, if you have not already perused it.

The average weight of a compressed bale, we have been told, is 30 lbs. to the cubic foot.

Your obedient servants, &c.

6.—INTERNATIONAL EXCHANGES—M. VATTEMARE'S MISSION.

It is expected that M. Vattemare will visit New Orleans this winter. He complains that in 1844 he was not cordially met on the part of the citizens, though one part of the legislature passed a resolution appropriating funds in aid of his object. Lately M. Vattemare has been invited by the Louisiana Historical Society to visit the city, and explain before it the full system he is carrying out, and a similar invitation has been made by Samuel J. Peters, Esq., in behalf of the 2d Municipality Lyceum. In New York we had the pleasure of much of M. Vattemare's society, and received from him—to be presented to Louisiana—a number of volumes, many of much value.

We design a few remarks upon this important mission to America. M. V. first visited the United States in 1839, as he says, to establish an international exchange of all that is valuable in science, literature, natural history, and the fine arts—and the establishment in every nation and state of an institution (under the fostering care of its government) to receive these exchanges—forming not only a *Museum*, illustrative as well of the powers of nature as of the state of perfection to which the productions of the human mind and hand have arrived, or are tending to in every quarter of the globe, but a kind of patent office, where the creations of the industry, the achievements of the intellect, of the inventive faculties, and of the government of each country, may be at once and always assigned to their true origin, and always verified without doubt or difficulty.

Returning to France in 1841, M. Vattemare carried 1800 volumes and near 1000 engravings, collected and presented to him in this country—for a large part state laws, reports, &c. In exchange the municipal councils, the different ministers of government, &c., appropriated many rare and valuable volumes; private citizens, authors, societies, &c., of France, added to the list. Many of these works are the most splendid and costly imaginable, and are never to be had on sale, nor could they be procured in any other manner. We had the pleasure of inspecting the most of them in the City Hall, New York, and in warehouse.

Congress, in 1845, appropriated \$500 and a copy of state documents, reports, &c., &c., to this object. The Secretary of War sent a copy of "Indian Tribes of North America," by Catlin. The City Council of Baltimore appropriated certain

works; the State of Maine 94 volumes and \$1,000; Michigan gave a splendid collection of works; Massachusetts a collection of her public documents, 195 volumes, and appointed M. Vattemare agent for transmission, &c., providing for necessary expenses, &c.; New York sent 200 volumes; Indiana 512 volumes.

Among the donors from France to the United States are His Majesty Louis Philippe, 20 volumes; Chamber of Peers, 150; of Deputies, 200; Minister of Justice, 250; War, 50; Navy, 150; Interior, 200; Commerce and Agriculture, 259; Public Works, 534; Finances, 128; City of Paris, 200; Agricultural Society, 156; besides an immense collection of maps, &c., and works from individual donors and societies.

As Louisiana would be among the foremost in all great enterprises, we are persuaded she will co-operate in this great movement of the age, tending to bring all the world more and more into the most friendly of all relations, since M. Vattemare's plan embraces all countries. If we would furnish a library for our State University, or for the State itself, by appropriating any number it pleases us of our official publications, we can receive in return the official publications of France, and in the result, we hope, of all Europe. Our libraries cannot be complete without these works, and they can be had in no other manner. For what we give there will be received a more than ample equivalent. If we have not works enough to give in exchange on our State, we can purchase them. If the legislature will appropriate one, two, or three thousand dollars annually, the Secretary of State may judiciously invest it for American publications, &c., showing the condition of our agriculture, commerce, arts, manufactures, laws, literature, &c., to be exchanged for similar works from other countries, on the most liberal basis. We really hope for the most gratifying results.

7.—LIBRARIES IN THE UNITED STATES.

According to a table compiled from the researches of a literary gentleman of New York, there are in the United States no less than 235 public libraries. The aggregate number of volumes is set down at 2,351,260. It appears that the State of New York has 33 libraries, with 174,000 volumes; Pennsylvania, 32 libraries, with 176,100 volumes; Massachusetts, 30 libraries, with 203,000 volumes; Ohio, 23 libraries, with 68,000 volumes; Maryland, 11 libraries, with 54,200 volumes; the District of Columbia, 9 libraries, with 75,600 volumes; and the other States smaller numbers. Rhode Island, in proportion to her population, has the largest number of volumes of any State in the Union.

EDITOR'S NOTE.—TO PUBLISHERS, &C.

There are a large number of works upon our table, politely furnished by the publishers and editors, which shall be elaborately noticed in our January No., space not admitting of it now. We would not do injustice to these works by hasty references. Our Book Department next year will receive great attention, and all publishers are invited to send in their works.

THE MONEY CRISIS IN ENGLAND.

The following communication was handed us some weeks ago, by our fellow-citizen, SAM'L. J. PETERS, Esq., and contains what we regard a sound exposition of the present embarrassments in England. We regretted that Mr. Peters' paper came into hand too late for insertion in the body of the work; but such is our favor for it, that we determined at once upon its appearance in the present supplemental manner. This will be a sufficient apology for what might otherwise be regarded anomalous.

THE financial condition of England has for more than half a century had a sensible influence on the affairs of the world. With those countries with which Great Britain has been most connected by commercial relations, that influence has been at times intensely felt. Considering the mutual dependence existing between that country and our own, an examination into the causes of the present crisis there, cannot be uninteresting; indeed, a knowledge of them may enable us to form a more correct opinion on the probable duration of it, and of its effects on our own interests.

The extraordinary pre-eminence which England has so long enjoyed as a commercial nation, may be traced back to the period of the Protectorate; it was then, in 1651, that the famous Navigation Act was adopted—afterwards re-enacted at the Restoration. This was the first and most important of the laws of England enacted for the protection of British skill and industry; and even Adam Smith, the great apostle of free trade, admits its salutary influence on the growth and prosperity of the nation. A speedy consequence of that act was the triumph of British enterprise over that of the Dutch, who had, to that time, for a very long period enjoyed a monopoly of the sea. This celebrated act gave the first impulse to the foreign Commerce of England, and from that time, to within a recent period, the sagacious policy of British statesmen uninfluenced by dynastic changes, or party distinctions, has been steadily directed to the extension of the commercial and manufacturing interests of that country. The application of automatic power to manufactures in lieu of manual labor, has, within the last half century, made Great Britain as conspicuous for its superiority in that source of national wealth, as in that of commerce.

The vast amount of capital required to conduct her commercial and manufacturing interests, thus extended over the surface of the globe, has gradually led to a system of credit, based on public and private confidence, far exceeding in extent any example that the past or contemporaneous history can furnish. The government, itself, during the American Revolution, previous to which the national debt was comparatively inconsiderable, and the expensive wars which grew out of the French Revolution, had to rely on credit, and during twenty years on inconvertible paper, as the only means by which its foreign policy could be sustained. Thus gradually have national and individual interests combined to create an artificial wealth, which so long as confidence in public and private faith and ability, is sustained, performs to all intents and purposes, and with incomparably greater

convenience and economy, the functions of intrinsic wealth. The national debt is now between eight and nine hundred millions of pounds sterling. The annual interest is not far from twenty-seven millions sterling. A portion of this debt constitutes, by law, the capital of the Bank of England, except about three millions, which the Bank has usually loaned to the government. Although the magnitude of the national debt renders its payment, and even any considerable reduction impossible, yet the holders of the stock representing that debt are in the possession of wealth to the amount of its market value. It is to them, capital, as it is to the Bank of England. Thus an element of national debility has been converted, by confidence, to means of national greatness, unprecedented in the history of the world.

This national debt forms but one item of the illusory wealth of the British people. Commercial credits issued by their joint stock banks, and by houses of established reputation, are sent to all countries which have surplus products of their soil and industry, and constitute the medium by which they make their interchanges. This latter species of credit is based on something more than faith, nevertheless confidence is essential to its use. Confidence and less than £40,000,000 in coin and bullion constitute the basis of the credit system of Britain. The Bank of England whose cash liabilities are thirty-six millions, possesses eight millions of this coin and bullion to meet them.

The last accounts from England show that confidence in public and private securities is much impaired; the depreciation of the funded debt, within a few months, amounts to over sixty millions, and that of other current securities to, at least, an equal sum. This is a loss of so much wealth or capital to the holders of that debt, and of those securities. Commercial failures to the extent of fifteen millions of pounds, have already occurred, and the causes which have led to this disastrous state of affairs, seem not only to be acting with undiminished intensity, but are accumulating power, from the very destruction they have occasioned. What in a time of peace and general prosperity has occasioned such astounding calamities?

The infallibility of Sir Robert Peel as a financier, and his honesty of purpose as a statesman, are, and have been seriously questioned by the opponents of his singularly vacillating policy: events are showing with how much propriety.

Lord Ashburton, one of the most practical statesmen of England, has recently exposed, and in a most able manner, the fallacy of the restrictions in the Bank of England act of 1844: their utter inconsistency with sound and generally admitted principles and well known laws which govern currency; and the present monetary crisis in England will, in the sequel, show how far the ex-Premier is responsible for the calamities which now afflict his country. By the "Peel restrictions," the Bank in a time of pressure may become an engine of destruction, and by becoming so, may even destroy itself. It is, however, by no means certain that any policy the Bank could have adopted, *without the "Peel restrictions,"* would have averted the crisis; therefore it is not just to ascribe it to the Bank, or to the errors of Sir Robert Peel's Bank Bill. It is not a deficiency of currency, but rather of capital, which causes the pressure; therefore

any increase of issues of the Bank, would inevitably and immediately lead to a corresponding diminution of its capital; that is, its reserve of coin and bullion. On this point there seems to be a singular degree of misapprehension among writers on this subject, in England and this country. Yet the distinction between capital and currency is most manifest. In his speeches in 1844 on the renewal of the Bank charter, Sir R. Peel condemned, in no measured terms, the "Bank restriction act" of 1797; yet no one should have known better than he, that that act was forced on Mr. Pitt by irresistible circumstances, resulting from the foreign policy of the Government—a policy which Sir Robert Peel has, on more than one occasion, publicly approved. It would seem that either Sir Robert Peel did not understand the financial question involved on that occasion, or that he was insincere in expressing his condemnation of that act. That he has often evinced a remarkable suppleness in placing himself on the popular side, on all questions, cannot be doubted; hence the opinion of his adversaries that he preferred popularity to truth, and distinction and power to honorable retirement and the consciousness of having performed his duty.

The popular mania in England in 1844, '45 and '46, was Railway speculation. The remarkable success of the Liverpool and Manchester Railway, made in 1830, had, up to 1845, induced similar undertakings, involving an expenditure of seventy-five millions of pounds sterling. All, or nearly all, of the Railways made during this period of fifteen years, proved to be good investments. They had absorbed for their completion some five millions annually of the capital of the country; and it is but reasonable to suppose that sum formed but a part of the profits realized from foreign commerce during the same period; consequently, no derangement of the monetary affairs of the country was occasioned.

But in 1844, '45 and '46, the effects of these successful investments of capital were sufficiently manifested to create alarm in the minds of intelligent men in England. Parliament was, during these years, inundated with petitions for railway charters, involving outlays of capital to the extent of hundreds of millions of pounds sterling. It was popular to grant them, as it was popular in this country, from 1832 to 1837, to enact Bank charters by our State Legislatures, in order, as it was said, to aid the General Government to establish "a better currency." If one will imagine all the applications for Bank charters during that period to have been made to one Legislative body, he may form some idea of the British Parliament in the years 1844, '45 and '46. Sir Robert Peel, during nearly all this eventful period, was the master spirit, whose word was law. Hence he is to a great extent responsible for the consequences which are following the imprudent legislation of those years.

To oppose the importunities of railway projectors and speculators, would have been to jeopard place and power. Six thousand miles of railways were authorized to be constructed on that little island during those three years, the average cost of which, per mile, was estimated at £35,000, involving an expenditure of over two hundred millions of pounds! It was intended that they should be completed in from

three to five years. Adopting the longest as the average time of their completion, it would require forty millions, or \$200,000,000 annually for these investments. The amount thus expended during the year ending on the 1st October last, was £41,500,000.

Now, assuredly it requires but a very limited knowledge of Political Economy, to perceive at a glance that an annual diversion of capital from the ordinary channels in which it had been employed, to an extent exceeding the total amount of the coin of a country, must cause an extraordinary derangement of those interests, to sustain which it had been previously used.

The Government was not unadvised of these inevitable consequences. Prudent men, in and out of Parliament, warned them in vain of the threatened danger; but it seems that even the Directors of the Bank of England remained in a state of somnolency, and saw not the dark cloud which portended the devastating storm, until the tempest aroused them.

A writer in the *Edinburg Review*, in 1846, thus alludes to this subject:

"It appears there are now in progress, and sanctioned by Parliament, 5800 miles of Railway, to complete which and bring them into operation, will absorb at least two hundred millions of pounds. Most of the companies promise the completion of their enterprises in three years, but, allowing for engineering casualties and unforeseen causes of delay, there is no reason to suppose any of them will require over five years, assuming, of course, that the necessary capital and labor will be forthcoming. The annual capital, therefore necessary to effect this, will be £10 000,000. Such is the sum which must be taken yearly from the surplus savings of British industry for the next five years, if these projects are to be realized. *There is no escape from this astounding interference.* We say nothing of the amount of British capital promised to foreign railways, which, however is not inconsiderable.

"Those who are best acquainted with public finances and the laws which regulate money and labor, regard the consequences of such a yearly demand with serious apprehension."

That the crisis so clearly predicted has occurred sooner than it otherwise would, the causes being aggravated by the partial failure of the grain crop, and almost total loss of that of the potato, in 1846, cannot be questioned; yet it was unavoidable. The deficiency of food rendered necessary the exportation of about twelve millions sterling of coin, which was equal to about one-fourth of the whole metallic basis of the currency. This alone was sufficient to produce great commercial distress. The exportation of a similar proportion of the specie now in the United States, within the same period, would probably cause a suspension of specie payments by more than half the Banks of the Union, including nearly all those of New York and New England, whose cash liabilities so very far exceed their specie.

It is true, legislators have passed laws making a suspension of specie payments highly penal, while at the same time they sanction and encourage a mixed currency of paper and specie, in the proportion of three to one, yet it is certain that the paper currency so constituted at such times, *from causes beyond the control of the issuers, become*

inconvertible! Thus, if it were necessary for us to import thirty millions of dollars of food or merchandise in one year more than usual, and there were no corresponding increase of the exports, the difference must be paid in coin: in such case the danger of a suspension would be imminent—an act of Providence, or perhaps an act of Congress, would be the cause. This proves nothing against the sound policy of a judicious and well regulated credit system, which in truth is indispensable; it only shows that, like our system of government, and all other human inventions, no matter how perfect, it is occasionally accompanied by evils, but which are amply compensated by the benefits which it permanently confers.

Our State legislators may well be excused for errors and inconsistencies, when similar incongruities have been sanctioned by the distinguished ex-Premier of England, in his Bank Bill of 1844.

The recent changes in the protective policy of that country, no matter how wise that policy may be, are doubtless exercising some influence. Interests of magnitude grew up under the fostering care of Government, which the present system has doubtless seriously injured, and has consequently caused great loss of capital. The most remarkable departure from the policy which was so rigidly adhered to by British statesmen during two centuries, was the adoption by Parliament, in 1833, of the Negro Emancipation Act. It was then that fanaticism and party calculations triumphed over the interests of the country, and indeed, as time is developing, over the cause of humanity, in whose name that monstrous wrong was perpetrated. That transaction increased the national debt £20,000,000, and inflicted losses on British merchants and capitalists to more than double that enormous sum. Some of the failures which have recently astounded the world, may trace their cause, in no small degree, to the effects of that suicidal act.

The withdrawal, then, of so large an amount of capital from trade and manufactures for the construction of railways, is the immediate and overwhelming cause of the present financial crisis in England—the severity of which is the greater, from the effects of the other causes alluded to.

The question naturally presents itself, When will this crisis end? It is clear the cause must first cease: the railway expenditures must be arrested, or those works must be completed by the aid of Government, by means of which the surplus capital of other countries may be obtained. Objectionable in many respects as such a measure may appear, it cannot be avoided without producing evils of alarming magnitude, including the suspension of cash payments by the Bank of England.

Efforts to arrest the railway expenditures have so far proved unavailing; and it does not seem probable that those works can be arrested, so long as the necessary capital can, by any means, be obtained. It appears, also, that the merchants of Liverpool have recently applied to Government for a relaxation of the restrictions on the circulation of the Bank of England, and for such relief as was granted to the merchants of London in 1793—namely, by the Government advancing to commercial houses, on good security, some five

millions of pounds, Exchequer bills; and it is asserted that these propositions have not been favorably received by the ministry. It is well, perhaps, to recur to the precedent on which this latter proposition was based.

In 1793 there was a financial pressure of great severity, ascribed, at the time, to many causes, but all widely differing from those now producing similar consequences, which threatened the existence of all the principal houses of London: many, indeed, succumbed. The Bank of England being alarmed, as at present, for its own safety, refused all aid. It was then Mr. Pitt agreed to loan five millions sterling of Exchequer bills to merchants, on good security, and Parliament sanctioned the measure. The immediate consequence was the restoration of confidence, and not half the amount was asked for, nor was there a shilling lost by the Government, of the amount loaned. Although this measure was objected to on sound financial, as well as constitutional grounds, yet its success silenced all opposition. It proved by its effects what was before but little understood—how important an element of national prosperity is confidence.

Whether the adoption of such a measure now, would be productive of similar results, is very questionable. The advance of such a sum would be but equal to six weeks' railway investments, after which a further advance of Exchequer Bills would probably again be necessary. Those securities are now at a discount, and there is reason to apprehend a deficiency in the annual revenue of the Kingdom, of over £5,000,000.

It is also proposed, by some, that gold shall cease to be a measure of value and medium of domestic exchange, and that Government notes shall be substituted. Anti-gold leagues are being formed, to carry this project into effect. If they succeed, it will inevitably lead to repudiation of public and private debts, to an extent equal to the depreciation of such a substitute—which would necessarily be very great.

The Government may well consider before it ventures to act on the various plans of relief suggested. On the one hand, if such relief be granted, it can be but temporary—inasmuch as whatever lessens the pressure of the money market, will facilitate the investment of capital in Railways, and thereby augment the evil which it would seek to alleviate.

On the other hand, if no relief be granted, and these troubles be left to work their own cure, the failure of Banks, Bankers, Merchants and Manufacturers will continue, until few will be left standing; hundreds of thousands of persons dependant on their daily labor for their subsistence, will be deprived of work; and social evils, of which in this country we can form but a feeble conception, will afflict the land, and perhaps endanger the stability of the Government itself.

The *Economist*, an English commercial periodical conducted with much ability, suggests as a remedy for the existing troubles, the issue of one pound notes. It assumes that such an issue by the Bank of England would, within a year, bring into the coffers of the Bank, twenty millions of the thirty millions sovereigns supposed to be in circulation in the Kingdom; that two-thirds of that sum might be

used as capital of the Bank, secured by an equal amount of Government securities, adding that much to the active capital of the country; the other third to be retained in gold in the vaults. If this were a correct calculation as to the amount of gold which would be exchanged for one pound notes, it is obvious the plan of the *Economist* would add but about £13,000,000 to the available capital of the country, equal to four months investments in Railways; and it is estimated one year would be necessary to effect the change, when four months' railway investments would be equal to the whole amount. It seems more reasonable to believe, under existing circumstances, that not more than ten millions of sovereigns would be thus withdrawn from circulation, and that consequently the extent of the relief from that measure would not exceed, during one year, £7,000,000; while, during the same period, forty millions of capital would be required for railways. That the measure proposed by the *Economist* is good to a very limited extent, cannot be doubted; and that the popular prejudice which theoretical economists had created against one pound notes—to which Mr. Peel in 1819, without his characteristic pliancy, lent himself—should be discarded, is unquestionable: the condition of the currency in England in 1825, and the effects of the stringent measures adopted for its reform, then sufficiently proved it.

But we must be allowed to differ from the *Economist* in another respect. It says in the number of October 2: "We have had an experience of twenty years more, during which the whole system of our banking and Banks has been greatly improved, and the principle has become universally admitted, and proved by experience, that Bank notes against which a certain reserve of coin is held, the remainder being represented by interest bearing securities as a guarantee for their convertibility, form a currency in every respect as efficient and safe as coin itself." This is true in times of prosperity and under ordinary commercial revulsions; but it unquestionably is not true on emergencies like the present. Unless the "interest bearing securities" are at all times, and under all circumstances, convertible into gold, the issues based on them are *not as safe as coin itself*.

Most, if not all, English writers on this subject, are influenced to a singular degree by the peculiar condition of the capital and currency of their country. In treating of principles, this often leads them into remarkable inconsistencies. Thus, they always speak of their Government securities as the equivalent of gold—as the basis of the circulation of Bank notes; and yet within three years these securities have diminished in value over eight hundred millions of dollars! and all the world knows that a political revolution would probably annihilate the whole.

Sir Robert Peel is opposed, in *principle*, to the Bank of England issuing one pound notes; yet he sees nothing wrong in that institution issuing fourteen millions of pounds sterling of notes of larger denomination, without being obliged, or even expected, to retain as much as one pound in gold for its redemption!

In 1810, during the suspension of cash payments by the Bank of England, when the celebrated report of the Bullion committee was made to Parliament, in which the existence of an excessive paper

circulation, and its injurious effects on the interests of the country were demonstrated, and preparations for a resumption of cash payments recommended, Mr. Vansittart, afterwards Lord Bexley, on behalf of the Government, opposed its adoption, and proposed in opposition the following remarkable resolution, which was adopted by overwhelming majorities of both Houses:

“Resolved, That the promissory notes of the Bank of England have hitherto been, and are at this time, held to be equivalent to the legal coin of this realm.”

At the time of the adoption of this resolution, the current price of gold in London, in Bank of England notes, was £4 16 0 the ounce! What was done then, may occur again. But let us hope, that whatever may be the extent of the calamities to which Britain may be exposed, from the seemingly irresistible causes which are now prostrating the energies, the fortunes and the commercial character of her people, she may be enabled to surmount them; and that in no event the example of the Parliament of 1810 will be deemed a precedent worthy of her imitation.

New Orleans, Nov. 24, 1847.

*. *Since the above was written, the news by the steamer Acadia has reached us. It confirms, in many important respects, the views of our correspondent; his prediction that the crisis was in no manner occasioned by the restrictions of Sir Robert Peel's Bank Bill of 1844; and that any additional issues of paper by the Bank of England would only increase the evil, has already, it appears, been singularly verified. ED. COM. REV.

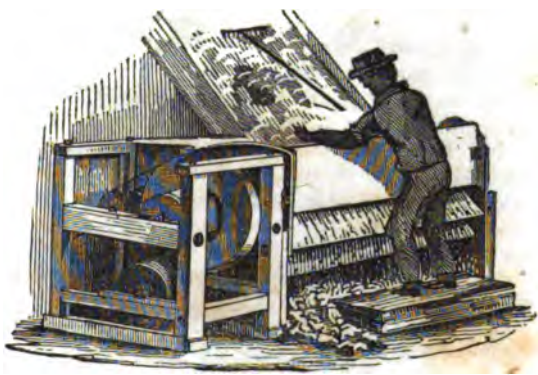
☞ *Note.*—This number has been delayed by unavoidable difficulties, growing out of the establishment of a new Printing Office, devoted to the publication of the Review. These difficulties being now removed, the utmost promptness in the delivery of the work will be insured.

We regret to say that our bound volumes for 1846, though re-printed and published, have been detained in New York longer than could have been anticipated. Our subscribers may rely upon receiving them in January. We solicit additional orders.

☞ We are indebted to the publishers for many late works, which shall be noticed in our next.

☞ Our thanks are due to Senator Johnson, of Louisiana, for public documents.

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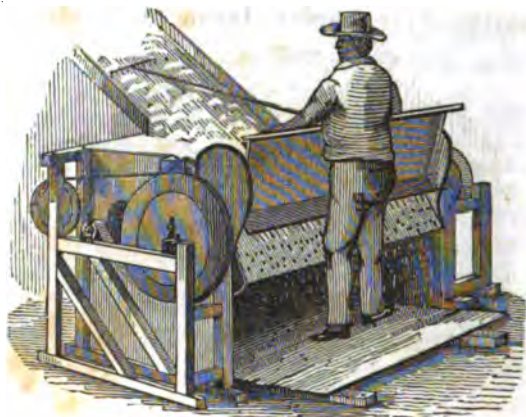
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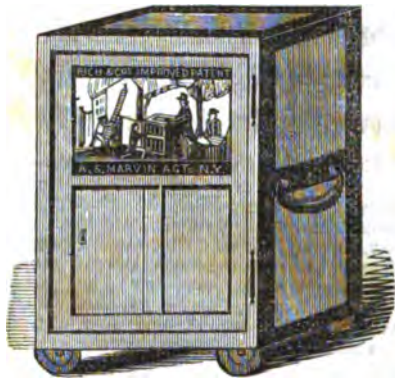
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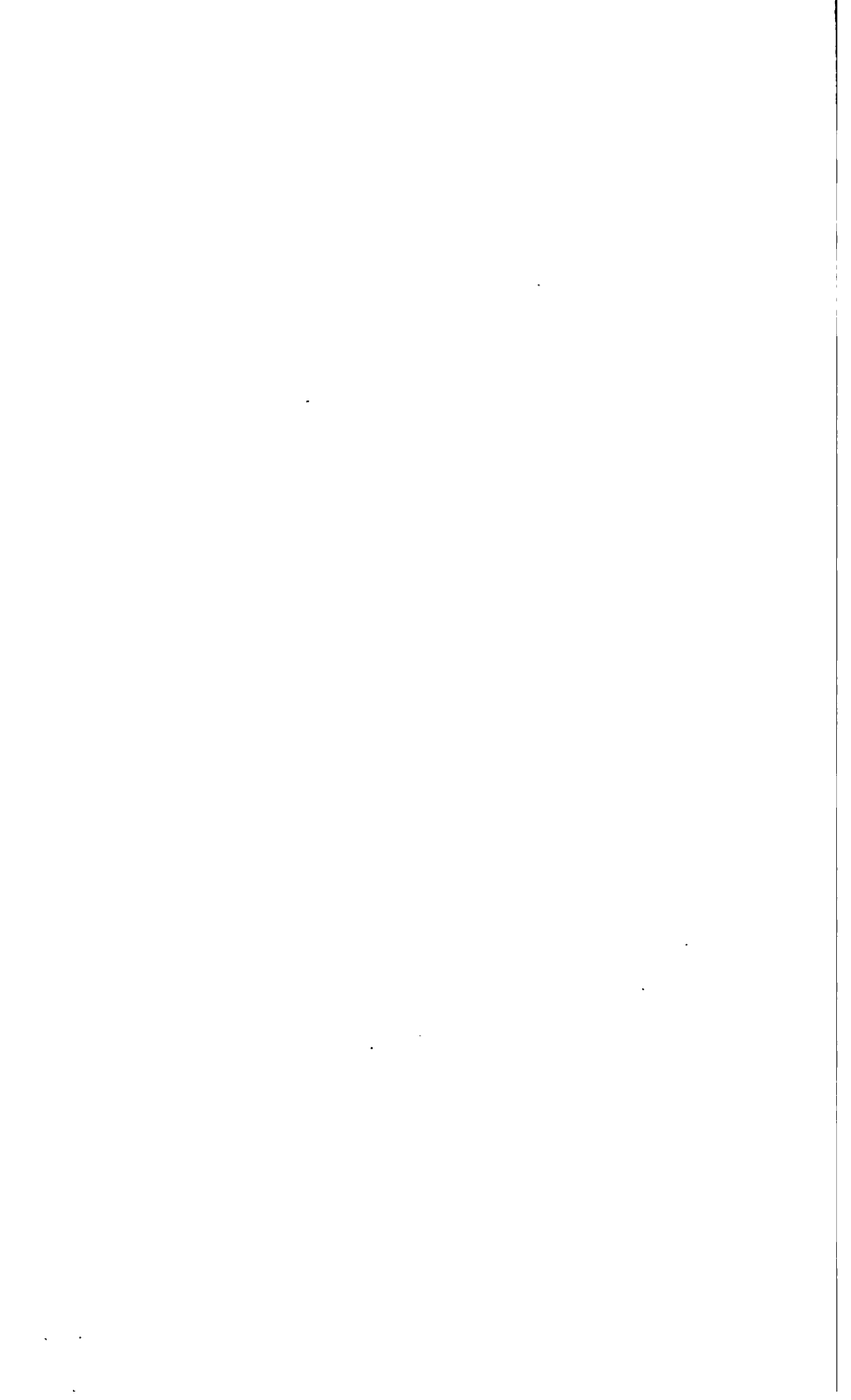
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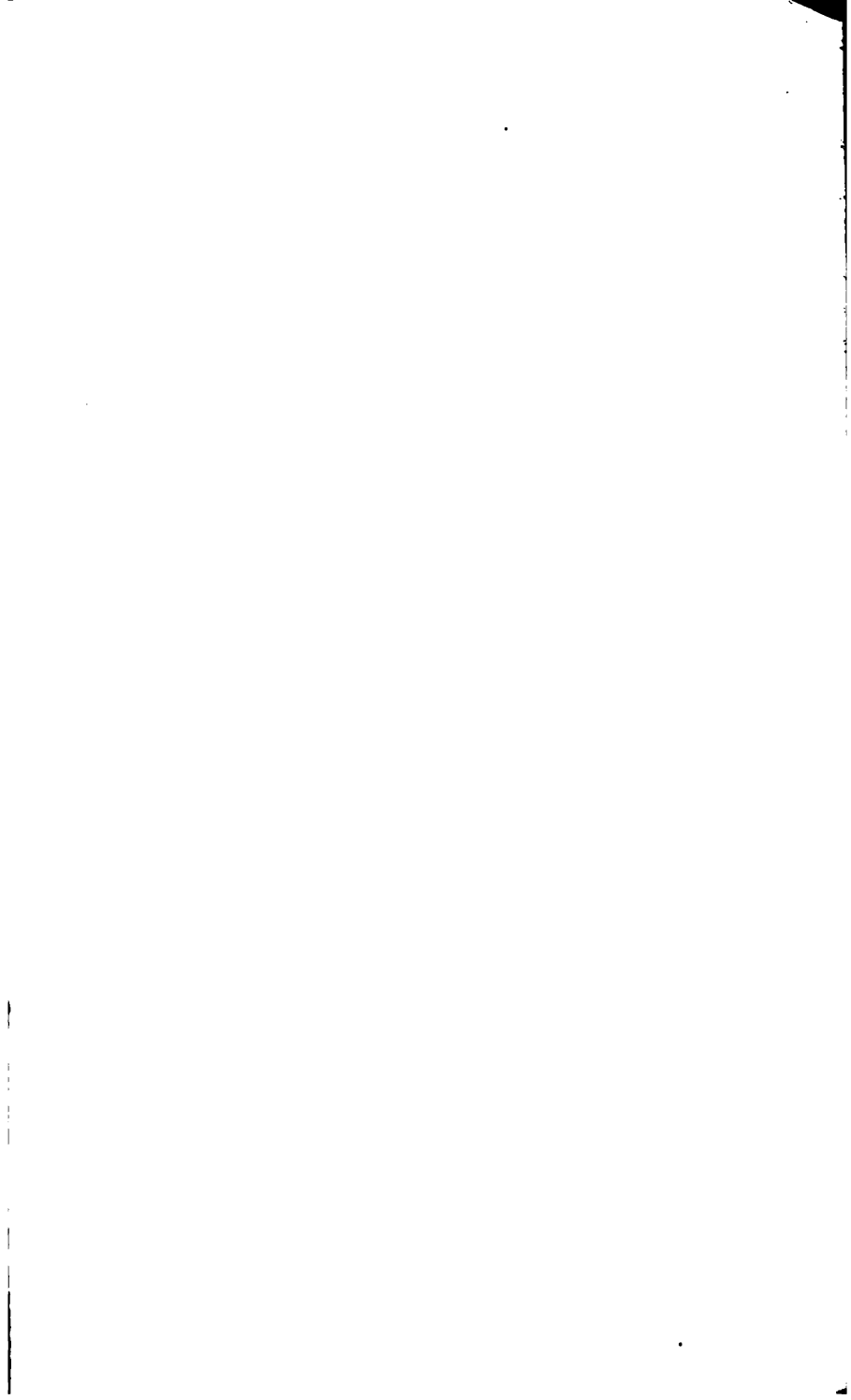
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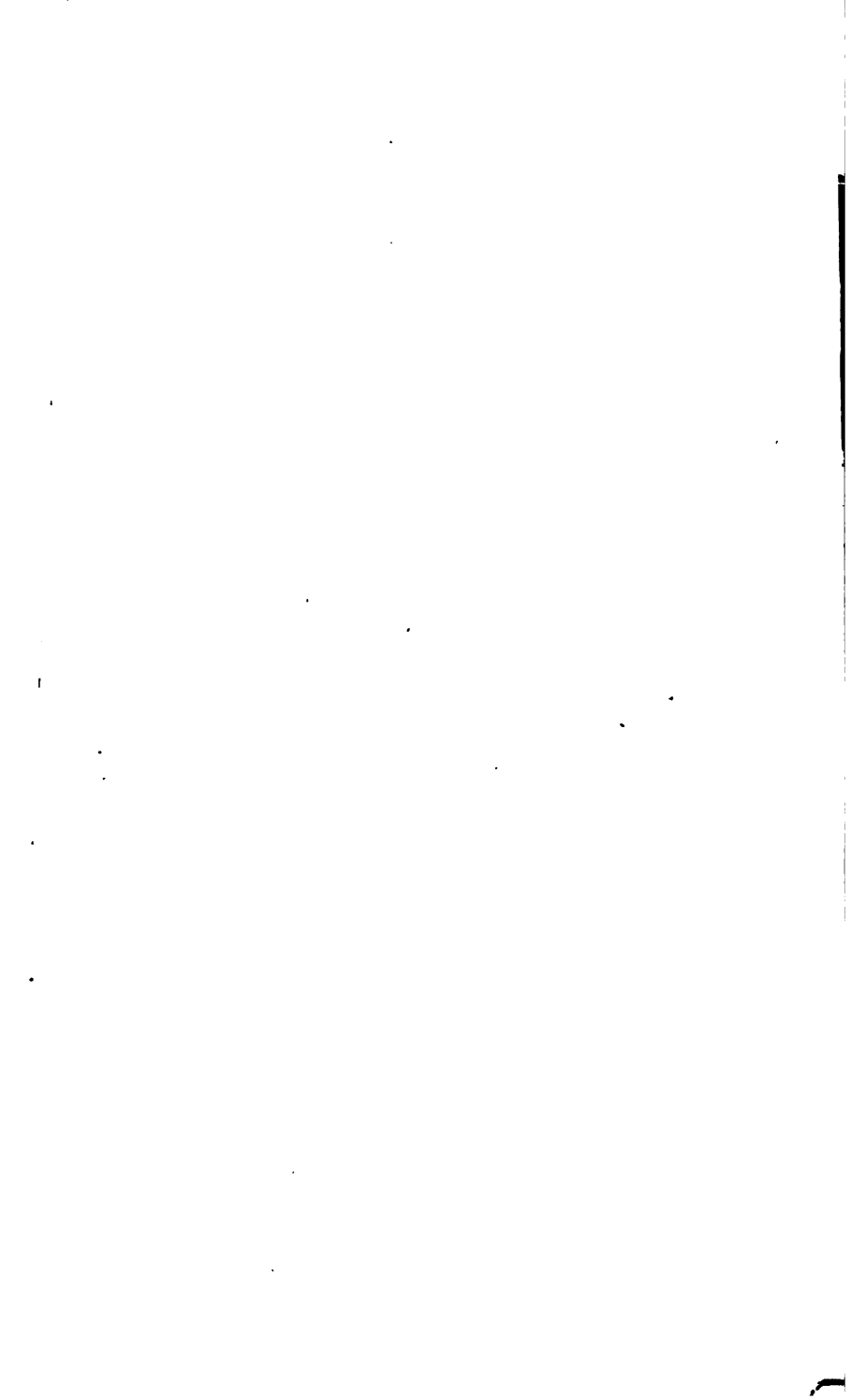
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